

AN ANALYSIS OF THE EXPRESSED TRAINING NEEDS OF
COUNTY AGRICULTURAL EXTENSION
AGENTS IN KANSAS

by

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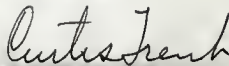
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CHAPTER I

INTRODUCTION

The Cooperative Extension Service is the educational arm of the United States Department of Agriculture, and it is a part of the Land Grant College of every state. This agency which was created by the Smith Lever Act in 1914 emphasizes additional training for the Cooperative Extension employees. The primary function of the Extension Agent can be found in the Smith Lever Act which states:

That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same. . . That Cooperative Extension work shall consist of the giving of practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities and imparting to such persons information on said subjects through field demonstrations, publications and otherwise.¹

The Act clearly points out that the primary function of the Cooperative Extension Service is education. This educational responsibility is for all the people of the United States. This responsibility is increased and emphasized by the rapid development of science and technology. These developments necessitate learning quickly in order that adjustment can be made to any new or unexpected situation. Adjustments must be made by the Extension worker as well as by the clientele.

Continuous professional improvement is very essential for the Extension Agent for many reasons - among them are the development of the scope of

¹U. S. Department of Agriculture, Ruling Affecting Cooperative Extension Work in Agriculture and Home Economics, Bulletin No. 285 (Washington: U.S. Government Printing Office, Revised, January, 1946), p. 7.

activities, and the rising level of education of the clientele, as well as the advances in science and technology. All the above reasons indicate that the Extension Agent needs more training from day to day. The development of Extension programs has pointed up the need for training in all the areas of subject matter, program planning, human development, home management and many other fields.

The responsibility of the Cooperative Extension Service lies in providing educational opportunities for the public, and this requires that the Extension Service maintain high professional competence, and performance among its workers. To maintain high professional competence, it has become very important to identify the areas in which Extension workers need training, the fields in which they desire training, and the training needs of Extension Agents at various stages of tenure. This training should include all areas; pre-service, induction, in-service and graduate training.

Extension work is a profession. Agents are required to have certain qualifications, and introductory experiences before being considered in full standing within the profession. Qualifications which the Agent should have are judged by reference to essential criteria of a profession. Professional performance as discussed by Yoder reflects:

1. A formal and somewhat standardized training.
2. It presumes the regular formalized exchange of information and experience among the workers.
3. It reflects continual research.
4. It implies a knowledge of, and familiarity with, a continuous growing field of literature.

5. It is guided by an accepted rule of professional ethics and stronger sense of public responsibility.
6. It is characterized by the most distinct characteristic of the professional. . .that suggested by the designation "learned profession"..a continuing attitude of learning.¹

This study was designed to provide additional information on the training needs of Kansas Agricultural Extension Agents. This study relates to the attitudes, knowledge, and skills of the Agricultural Extension Agent. This study is directed to three questions:

1. In what areas do Kansas Agricultural Agents possess competence?
2. What training do currently employed agricultural Extension Agents in Kansas feel they need in these areas in order they can meet the needs of the public?
3. What are the areas in which Kansas Agricultural Extension Agents are interested in including in their graduate work or in-service training?

Purpose of the Study

The major purpose of this study was to analyze the training needs of County Agricultural Extension Agents in Kansas as these needs were expressed by each Agent.

Specific objectives were developed to give more detail to the study. The specific objectives were:

¹Dale Yoder, Personnel Management and Industrial Relations, (4th ed. New York: Prentice Hall, Inc., 1956), pp. 26-27.

1. To describe some of the personal and situational factors relative to training of Kansas agricultural Extension Agents. Such data to include:
 - a. Tenure (experience).
 - b. Academic degrees held by Agricultural Extension Agents.
 - c. Subjects emphasized in undergraduate degrees.
 - d. Amount of graduate training already completed toward graduate degrees.
 - e. The perceived educational role of Agricultural Extension Agents.
2. To determine the expressed training needs of County Agricultural Extension Agents in Kansas in relation to the nine general areas of competency identified by the National Task Force on In-Service Training.
3. To identify specific items, within the nine competency areas, in which Kansas Agricultural Extension Agents felt the most need to include in graduate and in-service programs.
4. To determine if there are associations or relationship between training needs as expressed by the Agents and:
 - a. Tenure
 - b. Perceived educational role

Hypotheses

The hypotheses for this study were developed to give direction to the study and to serve as a guide in collecting, analyzing, and summarizing of the data. The writer used null hypotheses in this study. The reason for the use of the null hypotheses approach are given in the following statement:

This negativistic approach to acquiring knowledge about a universe by formulating null hypotheses and then rejecting them

on the basis of evidence seems almost the equivalent of setting up straw men merely to shoot them down. Yet in so doing, certain logical possibilities are eliminated and the range of remaining possibilities is narrowed. It is a cautious way of proceeding as are most scientific procedures.¹

The hypotheses were based on the literature review, and the objectives of this study.

The data in this study were taken from a total population, and have been used as the basis for accepting or rejecting the null hypothesis. The following null hypotheses were developed:

1. There is no relationship between the amount of training needed by Kansas Agricultural Extension Agents in each of the nine areas of competency and the importance of that area.
2. There is no relationship between the ranking of the nine general areas of competency on the basis of the amount of training needed by Kansas Agricultural Extension Agents and tenure.
3. There is no relationship between the ranking of the nine areas of competency of training needed by Kansas Agricultural Extension Agents compared by job perception groups.
4. There is no relationship between the amount of training needed by Kansas Agricultural Extension Agents in each of the nine areas of competency and the graduate training desired.
5. There is no relationship between the amount of training needed by the Kansas Agricultural Extension Agents in each of the nine areas of competency and the in-service training desired.

¹ Margaret J. Hagood and Daniel O. Price. Statistics for Sociologists, (2nd ed. rev., New York: Henry Holt and Co., 1952), p. 238.

Development of the Questionnaire

The author with the approval of his graduate committee, decided to use the majority of statements of the questionnaire designed by McCormick.¹ A questionnaire contained a total of 127 statements. The basic areas comprising the questionnaire were the nine areas of competency identified by the National Task Force on Cooperative Extension In-Service Training.

McCormick found that a more detailed sub-division of the nine areas would be necessary, if the resulting data were to be meaningful to supervisors and administrators in developing training programs for County Extension Agents.²

Each of the nine areas was divided into four parts as follows:

1. Part one, concerns the importance of the nine areas to the effectiveness of the Agricultural Extension Agents in Kansas. Agents could indicate the degree of importance as "absolutely essential", "highly desirable", "would be helpful", or "not important". A four point scale was developed for this part and will be discussed later.
2. Part two, concerns the amount of training the Kansas Agricultural Extension Agents feel they need in the nine areas of competency. Agents could indicate their training needs as "feel I understand" as the point of no training needed, through "need some training", "need much training", and "need very much training", as the point

¹Robert W. McCormick, "An Analysis of Training Needs of County Extension Agents in Ohio", Unpublished Ph.D. Thesis, National Agricultural Extension Center for Advanced Study, University of Wisconsin, 1959.

²Ibid., pp. 209-226.

of the highest amount of training needed. Another item "not applicable to my job" was added. A four point scale was developed for all items.

3. Part three, concerns the areas which Kansas Agricultural Extension Agents would like to include in their graduate training program, when taking leave of absence.

4. Part four, concerns the areas which the Kansas Agricultural Extension Agents would like to include in their in-service training program.

Additional questions were added to the questionnaire to help in the analysis of the situational data. The questionnaire was pretested by fellow graduate students at Kansas State University as a means of obtaining suggestions.

Collecting of Data

The data for this study were collected by the writer by mailed questionnaires to the Agricultural Extension Agents in Kansas during the period of June, 1962. The author gave detailed instructions for filling out the questionnaire. The first part of the questionnaire was devoted to necessary background information about the respondents. The remainder of the questionnaire was devoted to information relative to each of the nine areas identified by the National Task Force on Cooperative Extension In-Service Training.

Respondents in the Study

All Kansas Agricultural Extension Agents who were on the job July 1, 1962 were included in this study. There were 105 potential respondents to the questionnaire.

Table 1 shows the potential, the actual, and the percentage of the respondents. The data show that 93.3 per cent of the Agricultural Extension Agents responded to the questionnaire.

TABLE 1. Potential and actual Kansas Agricultural Extension Agent respondents by position.

Position	Potential Respondents	Actual Respondents	Percentage of Potential
Agricultural Extension Agent	105	98	93.3

The percentage of respondents in this study was low compared to the percentage of respondents in similar studies conducted in Arkansas¹ and Ohio.² The Agents in the Arkansas study responded 100 per cent, and in Ohio the response was 98.9 per cent.

Analysis of Data

The questionnaires completed by Kansas Agricultural Extension Agents were pre-coded and the data were punched on IBM cards on equipments owned by the Statistics Department at Kansas State University.

A total universe and descriptive statistical techniques were used in this study. Data were analyzed in the following chapters by means of mean weighted scores, percentage distributions, rank order, and coefficients of

¹Randel K. Price, "An Analysis of In-Service Training Needs Identified by County Extension Agents in Arkansas," (Unpublished Ph.D. dissertation, National Agricultural Extension Center for Advanced Study, University of Wisconsin, 1960), p. 22.

²McCormick, op. cit., p. 20.

rank correlation.

Agricultural Extension Agents were asked to check the items they would like to include in their in-service, or graduate training. Respondents were asked to check a descriptive term as a measure of training needed. The terms "feel I understand", need "some", "much", "very much" training were used. The author assigned scores of one, two, three, and four respectively for each of the above terms. An equal distance was assumed between each descriptive term in order that the items compared could be put in rank order for comparative purposes in the analysis of the data.

Significance of the Study

The data of this research study revealed that the study has immediate application to the Kansas Agricultural Extension Service. The data should be helpful to the Extension training committee, administration, and members of the resident staff in planning Extension training programs. It should be helpful to the resident staff of Kansas State University when advising students both graduate and undergraduate interested in Extension Service.

The findings of this research study have their first application to the Kansas Extension Service. In addition, they will contribute additional information on the Extension training all over the country. States which have similar training problems, and organizations similar to Kansas' should be able to apply some of the findings of this study.

In addition, the study emphasizes the importance of the nine areas identified by the National Task Force on Extension In-Service Training, and reinforce McCormick's¹ conclusions that the items used in this questionnaire

¹McCormick, op. cit.

can be useful to any state in making a study of its training needs.

Definition of Terms

The following definitions are used for certain terms in this study.

Agricultural Extension Agents: A term used to designate all County Extension Agents who are responsible for the agricultural program in Kansas.

Respondent: Refers to the Agricultural Extension Agents in Kansas who responded to the questionnaire.

Tenure: Refers to total number of years service, or length of service of County Agricultural Extension Agents in the Kansas Extension Service.

General areas of training: Refers to the nine areas of competency identified by the National Task Force on Cooperative Extension In-Service Training. These areas were used as the framework for this study. The nine areas of competency are:

1. Extension organization and administration,
2. Human development,
3. The educational process,
4. Understanding social systems,
5. Program development,
6. Communication,
7. Effective thinking,
8. Technical subject matter,
9. Research and evaluation.

Specific areas of training: Refers to those sub-areas listed under each of the nine general areas of competency identified by the National Task Force on Cooperative Extension In-Service Training. "How to analyze the situation

in my county", "How to use specialists in program development" are sub-areas of training under the general area of program planning and development.

Agent: Refers to Agricultural Extension Agents.

Descriptive terms: Refers to measures used to indicate the degree of training County Agricultural Extension Agents feel they need. The descriptive terms are "feel I understand", "need some training", "need much training", and "need very much training".

Job perception groups: Refers to two groups of County Agricultural Extension Agents. The first group was composed of Agents who perceived their role as that of an educator. The second group was composed of Agents who perceived their role as organizers, or purveyors of subject matter information, or providers of service, or the non-educational role.

Induction training: Training program which starts the first day the new Agent is on the job, and continues the first year of employment. This training program is designed to familiarize the new Agents with the Extension organization, teaching methods, communication, training in subject matter, and other fields related to Extension work.

In-Service training: Training program which an experienced Agent receives after his appointment to the Kansas Extension Service. This program may include training in any of the nine areas identified by the National Task Force on Cooperative Extension In-Service Training, such as subject matter, program planning, communication, Extension teaching methods, and other fields related to Extension work.

Graduate training: This term refers to all formal courses which an Agricultural Extension Agent takes after receiving a bachelor's degree, or those formal courses which are taken at the graduate level.

Chapter II deals with review of literature.

Chapter III deals with the situational factors relative to training of Kansas Agricultural Extension Agents.

Chapter IV deals with the expressed training needs of Kansas Agricultural Extension Agents in the general areas of competency.

Chapter V deals with the expressed training needs of Kansas Agricultural Extension Agents in the specific areas of training.

A summary, conclusions, and recommendations are presented in Chapter VI.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Extension Services in many of the states are attempting to build a sound training program in order to improve Extension Agents' abilities and skills in performing their respective jobs. Many investigations and attempts have been made to identify the training needs of County Extension Agents. This chapter includes a summary of the literature related to the above subject. Books, bulletins, theses, and other materials related to Extension, business and industry have been reviewed, and the facts have been recorded. Some of the methods used by the Extension Service and industry to determine training needs are much the same and have been included.

No attempt has been made to summarize all the research done in the area of identification of training needs. The purpose has been to review research data that help to support and establish the situation for this investigation, and to support and substantiate the findings of this particular study.

The Concept of Training

The identification of training needs of the County Extension Agent is a very important step in establishing a training concept. If one tries to locate a definition for the word training in a dictionary, he will find different kinds of definitions. None of these definitions are broad enough to cover all aspects of training in business, industry, and Extension.

In a study made by DePhillips and associates on employees' training

needs, the term training was used to mean:

That process which, under company auspices, seeks in a planned, co-ordinated and continuous manner to develop attitudes, which will maximize individual present and future efficiency and the effectiveness of the over all company operations.¹

Training involves a variety of activities which the County Extension Agent and the firm employee undertakes to improve their abilities, skills, understanding, attitudes and appreciation. Training will qualify the employee and better prepare him for his job. Industry suggests this aim for training:

To build continually and systematically to the maximum degree and in proper proportions, that knowledge and those skills and attitudes which contribute to the welfare of the organization and the employee.²

The Extension Service has the same idea as industry and business regarding training. The National Task Force on Cooperative Extension In-Service Training has the following to say about in-service training:

In-service training and development of employees is essential to efficient operation of the Cooperative Extension Service and to the attainment of its program goals. The purpose of such training is to prepare the workers for the immediate job ahead, for changes in problems and situations as they affect the work to be done, and to stimulate professional improvement. Training shall be designed to develop vigorous critical thinking and balanced action to meet current challenges.³

The literature revealed a similarity in the meaning of training among

¹Frank A. DePhillips, William M. Berliner, and James J. Cribbin, Management of Training Programs. (Illinois: Home Wood, Richard D. Irwin, Inc., 1960, p. 6.

²Earl G. Flanty, et al, Training Employees and Managers. (New York: Ronald Press Company, 1948), p. 25.

³An In-service Training Program for Cooperative Extension Personnel. Recommendations of the National Task Force on Cooperative Extension In-service Training, p. 29.

business, industry and the Cooperative Extension Service. Industry has done much research on training. Much of this research can be used by the Extension Service in solving some of its own training problems.

General Information About Training

✓ Training is an important process which helps to improve the employees of any firm or industry. It is a continuous process carried on throughout the year. Administrators usually try to train their employees every time a new discovery or development is found. On the other hand, older employees feel that they need continuous training in order to hold their jobs and improve their skills. New Agents must learn new skills, and knowledges, and adopt new attitudes in order to become an integral and effective part of their organisation.

The author found that there is little opposition to training. Most literature, new and old, considered training as an important and essential process in the building up of a good staff. The effectiveness of any organisation depends largely on the work and action of its employees. Every employee has satisfactory and unsatisfactory performances on the job. If an organisation wants to be successful, then, it should try to correct unsatisfactory situations. Unsatisfactory work experiences can be improved by training. Bellows states:

¶ If new workers could be given a capsule of magic ingredient, causing them to increase their production by fifty per cent, this would be a wonderful accomplishment. In the absence of such magic, training is one of the answers.¹

Every day new training challenges are developing, as a result of the

¹Roger M. Bellows, *Psychology of Personnel in Business*. (2nd ed., Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1954), p. 304.

rapid development of science, technology, and invention of machines. Government, industry, and business are concerned with day to day training. A spokesman for the United States Department of Labor said:

The transformation we're now seeing will make the 18th Century Industrial Revolution look like a 'pink tea'. If this is true then management will require highly trained and skilled people to carry on ever increasing and complex business and industrial operations. And these people must be trained if they are to keep pace with technological progress. Mechanization and automation not only have tended to reduce the number of dull and repetitive jobs but have also tended to eliminate the number of dull, repetitive workers. The responsibility of management is to select and train the best possible corps of employees.¹

The Cooperative Extension Service is also concerned with training. The Joint Committee Report on Extension Programs, Policies and Goals met in 1948 and discussed the importance of the Extension training program. The committee summed up this importance in the following:

Extension work today demands an educational background especially designed to fit workers for the profession. The basic philosophy should be to have Extension workers as well trained as possible in broad fundamentals during their undergraduate work, and to develop them into well qualified, technical persons by in-service training after they are employed. Extension has become of sufficient importance as a profession to justify special consideration in the land-grant college curricula. When workers are first employed, induction training is essential. This should be followed throughout the workers careers by continuous in-service training. Opportunities for in-service training should be made available on official time.²

Training employees is essential in industry, business and Extension. Moreover, training to be effective must be based on the training needs of the individual and their respective organization. Yoder indicates that when building any training program, consideration should be given to the needs of

¹DePhillips, op. cit., p. 4.

²Joint Committee Report on Extension Programs, Policies and Goals, U.S.D.A. and Association of Land Grant Colleges and Universities, Washington, D.C., 1948, p. 42, Government Printing Office.

the employees, and their organization. Training programs should be used where there is an apparent need for them. He points out, however, that training will not cure all the sickness of any given organization.¹

Extension is not the only agency concerned with the training of employees. Industry, business and management are putting much emphasis on personnel training. They consider training to be their responsibility. Yoder found that 90 per cent of the companies who report their employees' activities put much emphasis on employee training. Company executives consider employee training as one of their primary responsibilities.²

↓ Training is needed, but, the need varies from one employee to another. Every worker has had different kinds of experiences, and consequently every worker has different needs. The duty of trainers is to satisfy these needs, if the organization is to be successful. Extension administrators believe that extension training should be based on the needs of the worker in any given organization. In the Fifth National Administrative Workshop held at the University of Wisconsin, Extension administrators reported:

1. A job description is the basis for determining training needs.
2. The people performing the job must be involved in deciding the specific functions of the job and training needed.
3. A statewide committee to advise on training is suggested. "Across the board representation to decide upon over-all training needs". (4-H, agriculture, home economics, special county workers, specialists, resident staff, experiment station personnel).
4. New workers should be considered when thinking of training needs.

¹Yoder, op. cit., p. 222.

²Ibid., p. 279.

5. Potential promotions in the county and to specialists and supervisory positions should be a part of the considerations on training needs.
6. Agents should have an opportunity to express their needs for training.¹

Companies spend much money on training. They take into consideration what training will do for the company. They want to gain a maximum benefit from every dollar spent on training. Executives usually consult their employees before they plan their training program, in order to determine employee needs and to use the right measures to fill those needs.

Industrial and business firms have conducted much research and have given much thought to the problem. Business and industrial personnel feel that training programs should be based on the identified needs. One writer states:

All industry training should be based on a determination of what is needed, whether the need be for an induction program, supervisory training or executive development, and that doesn't mean haphazard guessing of training needs, such as is currently prevalent in many companies. Before management establishes a formal training program, it must set up a specific program of objectives, define how the plan is to be carried out, who is to be trained and why.²

Determining Training Needs

Usually employee training is carried on with a point of reference. It should be related to both the present and the future needs of any given organization. The question most often asked is: "What is the basic process

¹Report of Fifth National Administrative Workshop, Cooperative Extension Administration, National Agricultural Extension Center for Advanced Study, University of Wisconsin, Madison, 1956, p. 53.

²James C. Dunbar, "Survey Training Needs," Personnel, Vol. 25, No. 3 (November, 1948), p. 225.

in identifying training needs?" The basic process as identified by the United States Civil Service Commission is:

1. Determine what is required or expected on the job or in the situation.
2. Determine the degree to which these requirements or expectations are being met. If they are not being met, find out the reasons. To the extent that these reasons involve changes in knowledge, skill, attitudes, or behavior of employees (at all levels) you have a need which training can probably help meet. You and the line officials concerned will have to judge whether training is the best way to meet it.¹

Before building any Extension training program, consideration should be given to the determination of training needs of the Extension worker. It is very important to determine training needs, because by doing so action can be taken toward building a training program based on those needs. Duncan states the importance of determining training needs and how to go about it by this statement:

The most basic and top priority problem facing extension training committees when considering action on an extension training program is determining training needs and building the training program around these needs. The first step is that of a thorough analysis of the need for training, by administrators and an agreement on general objectives of the training program and a setting of administrative policy that will guide the development of a long time coordinated training program. The next step is to designate a committee representing all phases of extension and the college to act within the framework of the administrative policy, to work out procedures for determining training needs and to recommend a program to be followed.²

There are several schemes which can be followed by a committee in determining what problems should form the basis of the training program. Duncan suggested a scheme whereby the training committee composed of all phases of

¹Assessing and Reporting Needs and Progress, United States Civil Service Commission, Personnel Methods Series No. 3, December, 1961, p. 7.

²James A. Duncan, Training Cooperative Extension Workers, The Coordinated Approach, Cooperative Extension Service, College of Agriculture, University of Wisconsin (Madison, April, 1957, p. 33.)

Extension workers set forth training needs as they see them. This method to be effective requires prior preparation by the committee members in order to determine Extension worker thinking and on-the-job problems. Other methods in determining Extension worker's training needs are the use of survey questionnaires and the use of either personal or group interviews. A carefully planned and thoroughly implemented need-inventory should form the basis of each state long-range training program.¹

Industry employs many methods in determining training needs. Some of these methods have been identified by various authors. Bellows, Estep and Scholl suggested the use of "Training Evaluation Check List."² Bellows feels that "Job Analysis" is a good method.³ Fryer thinks that training needs can be identified by "Studying the Learning Behavior of Trainees".⁴ McGhee suggests the use of "Employee Progress Records".⁵ Dunbar suggests the use of the "Survey Questionnaire".⁶

Other methods of identifying training needs are used. DePhillips in his book "Management of Training Programs" discusses the following methods and thinks that these methods may prove useful in assessing training needs:

1. Job analysis and specification.

¹Ibid., p. 33.

²Roger M. Bellows, Frances M. Estep, and Charles E. Scholl, Jr., "A Tool for Analysis Training Needs, The Evaluation Check Lists," Personnel, American Management Association LXIX, 1953, pp. 412-417.

³Roger M. Bellows, Psychology of Personnel in Business, (2nd ed.) Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1954, p. 304.

⁴Douglas H. Fryer, "Training With Special Reference to It's Evaluation," Personnel Psychology, IV, IV, 1951, p. 19.

⁵William McGhee, "Cutting Training Waste," Personnel Psychology, I, 1948, p. 331.

⁶Dunbar, op. cit., pp. 225-231.

2. Performance ratings.
3. Analysis of personnel records.
4. Other company records, cost and production records, attendance records, and labor turnover records.¹

In a summary of general methods of need determination, the United States Civil Service Commission suggests the following methods:

1. Interviews.
2. Questionnaires.
3. Tests.
4. Job analysis and performance reviews.
5. Group problem analysis.
6. Records and reports studies.²

↓ Extension uses similar methods in determining the training needs of its workers. The National Task Force suggested three steps:

1. Locating areas of training need through:
 - a. Analysis of jobs.
 - b. Analysis of program emphasis.
2. Identifying the individual worker in need of training through:
 - a. Self-surveys of needs and interests.
 - b. Day-to-day observation by supervisor and specialists.
 - c. Tests.
 - d. Analysis of performance evaluations.
3. Determining priorities in training need.³

¹DePhillips, op. cit., pp. 273-286.

²Assessing and Reporting Training Needs and Progress, op. cit., pp. 12-13.

3. An In-service Training Program, op. cit., p. 9.

Some of the methods used by industry and Extension to identify training needs are similar. Most researchers in the field believe that it is very important that the training of employees should be based on the training needs of workers.

The Importance of the Competency Areas

In the training of Agents, the most important step is to identify the areas of competency. Leagans expressed his ideas about this when he said:

What is known today about the teaching learning process all points to the necessity of identifying the competencies to be developed in the learners as a necessary condition for effective training. Without this how does one know, for example what kind of subject matter to use, what kind of teaching procedures and techniques of communication to use, or how much time and effort to allocate to the task. When one examines the nature of recognized professional groups, it is discovered that a prime condition is clarity of competencies expected, and also, standards for these. For evidence one needs only to examine such professions as: medicine, law, formal education, and that of others like carpenters, plumbers, and air plane pilots. In the training of each of these groups, the competencies aimed at are clearly identified and there are usually at least minimum standards for competencies required for the professional practice.¹

Leagans suggested eleven areas of competency. He states that these items are not intended to be all inclusive or of equal importance. They represent a wide range of literature related to Extension work and his twenty years of study and experience in Extension. The competency areas are:

1. Knowledge and understanding of subject matter.
2. Understanding Extension and its educational role.
3. Skill in human relations.
4. Ability to plan.

¹J. Paul Leagans, Competencies Needed by Extension Workers, Report of Conference on Extension Training, Cornell University, April, 1937, p. 8.

5. Ability to clarify objectives.
6. Ability to organize.
7. Communication skill.
8. Skill in relating principle to practice.
9. Skill in inquiry.
10. Evaluation ability.
11. Ability to provide learning experiences or to teach.

Leagans points out that there is a continuous need to further clarify the competencies needed by Extension workers.¹

There are nine areas of competency which are generally considered important for all Extension workers. Those areas were identified by the National Task Force on the Cooperative Extension In-service Training.

1. Understanding the Cooperative Extension Service.
2. Understanding human development.
3. Understanding program planning and development.
4. The educational process.
5. Social systems.
6. Communication.
7. Philosophy and values.
8. Technology.
9. Research and evaluation.²

The above nine general areas were selected as the framework for this study. These same areas were the basis for studying training needs of Extension Agents in Ohio³ and Arkansas.⁴

¹Ibid., pp. 10-19.

²An In-service Training Program, op. cit., pp. 13-15.

³McCormick, op. cit., pp. 4-5.

⁴Price, op. cit., p. 13.

Agent training needs in these competency areas differ from one state to another. In the Ohio Study¹ the rank order of the nine areas on the basis of the training that the Ohio Agents said they needed at the time of that research project was:

1. Program planning and development.
2. Effective thinking.
3. Communication.
4. Technical knowledge.
5. Human development.
6. Research and evaluation.
7. The educational process.
8. Understanding social systems.
9. Extension organization and administration.

The rank order of the nine areas on the basis of how important the respondents felt it was for the Extension Agents to be trained in these areas was:

1. Technical knowledge.
2. Program planning and development.
3. Communication.
4. Extension organization and administration.
5. The educational process.
6. Effective thinking.
7. Human development.
8. Understanding social systems.
9. Research and evaluation.

¹McCormick, op. cit., p. 90.

The three areas in which Agricultural Agents indicated they needed the most training were:

1. Program planning and development.
2. Human development.
3. Effective thinking.

In Arkansas the nine areas were the basis for studying training needs of the Extension Agent. Price conducted the study in Arkansas.

The rank order of the competency areas, based upon the percentage of Agents who indicated each area as "very important" as to Agent effectiveness, was as follows:

1. Program planning and development.
2. Understanding human development.
3. Communication.
4. Effective thinking.
5. Understanding social systems.
6. The educational process (tie).
7. Extension organization and administration (tie).
8. Research and evaluation.

The technical knowledge area was not included in the question on importance because logically its importance was assumed. Without knowledge of technical subject matter, the Agent could not teach.

The following rank order of the competency areas is based upon the Agent's listing of the amount of training needed in each area. This rank order implies areas where heavier emphasis may need to be given. It does not imply that those areas ranked near the bottom are not important nor that Agents do not need training in these areas. The rank order for the areas was:

1. Program planning and development.
2. Understanding human development.
3. Technical knowledge.
4. Communication.
5. Research and evaluation.
6. Effective thinking.
7. The educational process.
8. Understanding social systems.
9. Extension organization and administration.¹

Need for Extension Training

Extension plays a major role by taking the new findings of research to the farmers and home makers, and interpreting it for them. Then, Extension continues to help people to help themselves through well-trained Extension workers.

It is well known that the Cooperative Extension Service places great responsibility on its County Agents. The responsibilities of the Extension Agent and the need for continuous professional improvement has been stated by Dr. Glenn Frank, former President of the University of Wisconsin:

The future of America is in the hands of two men, the investigator and the interpreter. And we have an ample supply of investigators, but there is a shortage of readable and responsible interpreters, men who can effectively play mediator between specialists and laymen.

Science owes its effective ministry as much to the interpretative as to the creative mind. Rarely do the genius for exploration and the genius for exposition meet in the same mind. The investigator advances knowledge, the interpreter advances progress.²

¹Price, op. cit.

²R. K. Bliss, et al, The Spirit and Philosophy of Extension Work, (Washington: Graduate School, United States Department of Agriculture and the Epsilon Sigma Phi, 1952), p. 335.

Extension Agents are interpreters of the research found by the investigators. Interpreters should have the training and the willingness to think and translate the research work into the language of the farmers and the homemakers. To do so, and to be able to teach, transmit and interpret the findings of research, an Agent should be up to date in many subject matter areas.

Literature shows that Extension administrators and supervisors are seriously concerned about training needs of Extension workers, both new Agents and those who have been employed for a period of time. Administrators think that both parties should be prepared well enough to face their work with enthusiasm and good will. The concern of the administrators and supervisors is expressed by Duncan:

The need for professional training for Cooperative Extension workers now on the job, those preparing for Extension careers at the undergraduate level, and the present and anticipated need for qualified county workers, demands critical analysis of the status of present day Cooperative Extension Education. The training problems most urgent are those of increasing the competence of those on the job in such skills as Extension program development, Extension teaching methods, public policy, technical subject matter in agriculture and home economics, Extension evaluation and public relations. It is further necessary to prepare new personnel to replace approximately 15 per cent of the county workers each year due to resignation, retirement and newly created positions.¹

↓ Extension Agents should be well prepared and well trained if they want to meet today's challenges. Developments in science, technology and mechanization require Agents to keep abreast of those developments if they intend to be successful in interpreting new research findings. Extension Agents shift their programs to meet the changing world. The 1956 "Scope Report" emphasized the need for Extension Agents to be currently well.

¹Duncan, op. cit., p. 2.

prepared to meet the challenges of change and demand. The report states:

One constant characteristic of Extension work has been the necessity to shift programs and methods to meet ever-changing conditions and demands. Extension workers have been acutely aware of this need from the beginning. The tempo of such changes has been accelerated dramatically during the past decade. Every evidence points to an even faster acceleration in the decade ahead.¹

This era in which we are living is in a state of change. This indicates that Agents need continuous professional improvement as well as continuous education for all people. Calivar states some of the general changes:

1. Our population is increasing.
2. The population is more mobile.
3. The population is growing older.
4. Easy and swift communication is creating one world.
5. We are working less.
6. We are producing more.
7. Our work is easier.
8. The family and home are undergoing a radical change.²

Some of the changes in agriculture during the past forty years are stated by Myers:

1. There has been greater use of mechanical power.
2. There has been gradual increase in the size of operation that a farm family can handle. This resulted in fewer but larger family farms.
3. The trend toward specialization of farm production continues.

¹Paul A. Miller, et al, The Cooperative Extension Service To-day--A Statement of Scope and Responsibility (East Lansing, Michigan: Michigan State University, 1958, p. 5.

²Ambrose Calivar, "Continuing Learning for a Changing World," Adult Leadership, Vol. VI, No. 3, (Sept. 1957), p. 73.

4. The change from self-sufficient to commercial agriculture has meant more buying and selling.
5. There is an increasing intensity of production.
6. Transportation and communication have come far.
7. The increased use of printed publication, as well as radio and television helps to improve the effectiveness of our Extension program.¹

The above mentioned changes which occurred during the last forty years are very important. It is necessary then, to help farmers keep in closer contact with the changing conditions in all fields related to agriculture. We can help farm families help themselves to keep in contact through better trained Extension workers. These Extension workers should be trained from year to year, because we cannot wholly depend upon the skills and knowledges in prior years to meet the demands of today and tomorrow.

A continuous professional training program is very necessary for Extension Agents, who want to improve their abilities, skills and knowledge, so they can do a better and more useful job.

Training programs, then, are a necessity for the development of Extension Agents. The Kansas Extension Service provides training programs for their County Agents. It provides induction training to acquaint the beginners with the organization, the purposes, methods and procedures, and to acquaint the new Agent with the Central Office personnel. Another type of training which the Extension Service in Kansas provides is in-service training which tries to improve the competency of County Agents, in order to meet the changing times.

¹W. I. Myers, "Need of Changing Agriculture," Report of Conference on Extension Training, Cornell, 1937 (Washington: U. S. D. A., Federal Extension Service), pp. 4-6.

Types of Training Needs

The manner in which Agents should be trained will vary from one Agent to another. The most common types of training are: induction, in-service and graduate training. All the above types are used at one time or another to develop the abilities and increase the knowledge and skills of the County Agricultural Agent. The three kinds of training are discussed below with the greatest emphasis placed on in-service and graduate training.

Induction Training Needs. The most critical period in the career of any employee is his first year on the job. The beginning County Extension Agent needs a great deal of training in order to orient himself to his new job. The work and action which the new employee will experience during his first year on the job will have an impact on his effectiveness during the coming years. Supervisors and administrators will formulate their opinions about new employees in the first year of employment.

Induction training, then, is a very important process. Every newly appointed employee has a definite need for induction training. Duncan emphasized the pressing need for attention to induction training when he stated:

One of the high priority tasks in any State Extension Program is placing on the job, and providing carefully planned and effective training for new Extension workers. The significance of this problem is pointed up by the fact that approximately 15 per cent of the county workers of most states have been on the job less than one year. This is considered the critical period in an Extension worker's life, and most of them require rather intensive training and close personal supervision in order to become productive and adjusted Extension workers and attain a high degree of job security in the shortest length of time.¹

Training new workers is one of the most important and difficult problems facing the Cooperative Extension Service. Induction training to be successful should have the support and the backing of the entire Extension staff.

¹Duncan, op. cit., p. 24.

This support will help, to a large extent, in the development of induction training programs. The National Task Force on Cooperative Extension In-service Training set up some objectives for induction training which will help the new Agent.

1. Get a correct concept of the nature, purpose, and scope of the Cooperative Extension Service.
2. Develop an understanding of his functions and his role as an employee of the Cooperative Extension Service.
3. Obtain the knowledge and skills necessary to do his job and work in an efficient and effective manner.
4. Develop a "feeling of belonging" to an important educational organization.
5. Understand and appreciate the relationships of 4-H work, home economics, and agriculture to a total Extension program.
6. Understand what constitutes a successful Extension Agent and how well he meets the standard.¹

The induction training program starts the first day the new Agent is on the job and continues throughout the first year of employment. This program will supplement the training the new Agent had before starting on the job, and help the Agent put into practice what he learned during his preservice training. The training program should take into consideration the Agent's background and experience.

Many attempts have been made to find out what new experiences should be offered to the newly appointed Agents. Leagans has suggested the following experiences for new Agents during their first year on the job:

¹Induction Training For County Extension Agents, Recommendations of the National Task Force on Cooperative Extension In-service Training, p. 2.

Newly appointed Agents should spend several days with different Agents in order to participate in the various phases of Extension work. Then, new Agents should have a conference at the district level. In these conferences, Agents will discuss the problem which face them, and to clear up questions that confront them in their job. They will learn what they can about the Extension Service and its various phases. Agents should be encouraged to do some readings on the objectives of the Extension Service in relation to practical operation. This will help the new workers to become better acquainted with their job.¹

When planning any training program consideration should be given to the content of the program, the methods and the procedures used for training. In addition, consideration should be given to individual personal characteristics, college training, and the type of experiences new Agents have had. A comprehensive induction training program includes:

1. A brief orientation at the state office, under guidance of the supervisors.
2. Field experience under direction of good trainer Agents in special training counties.
3. Visits to other counties to observe good Extension work.
4. Specific reading assignments.
5. A new worker's conference after two to six months' service, dealing with Extension organization, policies, philosophy and techniques.
6. Group training in subject matter and methods based on needs of individuals.

¹Paul J. Leagans, "Suggestions for Induction Training of County Extension Workers", U.S.D.A. Mimeograph.

7. Personal conferences by supervisors to appraise the progress and plan specialized training needed.
8. Short courses or special workshops on communication, organization and planning, and teaching techniques.
9. A final evaluation conference with the supervisor at the end of the induction training to analyze the progress, give recognition and suggest additional improvement needed.¹

The review of literature indicated that when training newly appointed Agents, consideration should be given to the planning procedures to be followed in the training process. This usually differs from one Agent to another.

↓ In-service Training Needs. The job of the Cooperative Extension Service is educational. It is a continuous job in which new information, practices and new methods are developed; then transferred to the farmer for use. The job of the Extension Agent is to change attitudes, skills, knowledge, appreciation and the understanding of the farmers through education. Thus, County Agents should keep professionally equipped for their job. This is considered the most important responsibility of the Cooperative Extension Service. A County Agent may be good enough on the job, but there is a continuous need for new information in the nine areas mentioned in this study and many other areas, in order that the Agent can do what is expected of him.

The Joint Committee Report on the Extension Programs, Policies, and Goals emphasize the need for continuous training for the Agents. They stated:

In-service training, of course, should not end with induction education. It should be a continuous process. It should be planned to meet the needs of individuals and special groups, it should give opportunities for study under supervision, and it should be intensive. It is important that Extension workers have opportunities for frequent short periods of

¹Induction Training, op. cit., pp. 2-3.

in-service training to bridge gaps in academic preparation, to serve as refresher training, and to meet changing problems and situations as they affect the job to be done.¹

Collings in a paper prepared in 1954 brings out the facts that the current thinking of Cooperative Extension administrators and supervisors emphasizes two major reasons for a strong in-service education (in-service training) program. These are:

1. The removal of deficiencies in pre-service and previous in-service preparation and,
2. Continuance of growth of Extension personnel.

To maintain the recognition of Cooperative Extension as a teaching profession, both State and Federal administrators are concerned with the need for professional improvement of workers.²

Several studies have been made which encourage the in-service training program. However, most of these studies are broad and identify general areas of training rather than specific areas.

A study made in New York State showed that the Agricultural Agents placed less weight on training in a number of subject matter fields and more on thorough knowledge in one field than Home Demonstration and 4-H Club Agents. This same study showed that the three areas of content preferred by the Agent for further training were in the following rank order: (1) improvement of techniques and skills on the job, (2) subject matter, and (3) social sciences.³

¹Joint Committee Report, op. cit., p. 45.

²Mary L. Collings, "In-service Education of Cooperative Extension Workers." Federal Extension Service (Washington: U.S. Government Printing Office, 1954), p. 1.

³Harold W. Benn and Charles R. Aiken, "A Look at Our Job. Factors Associated with Effective Extension Teaching in New York" (Ithaca, New York: Cornell University, 1953), p. 11 (Cited by McCormick, p. 44).

A Texas study revealed that County Agents attached more importance to training in the areas of social science than any other area. Social science was considered to include such subjects as Economics, Sociology, Education and Extension Methods.¹

The in-service training of County Agents is accomplished by different means. These vary from individual training by supervisors from one to three days spent in a district, to a state wide conference, workshop or short course which lasts from one to three weeks.

Collings gives the following state in-service education programs, and their description, in a paper written in 1954. This list is becoming generally accepted in Extension training circles as a means through which in-service training is accomplished:

1. Summer school courses. These courses are initiated by states and limited to their own personnel. Normally, they are of three weeks duration and serve as refresher courses in subject matter as well as methods. They provide for full-time attendance at college classes designed especially for the needs of Extension workers.
2. Committees to study specific problems. The purpose of such work is, in part, to provide Extension workers with an opportunity for individual growth while working on common problems.
3. Interchange of work responsibility between Agents. A recent study of 4-H club work indicated that a considerable block of the Agent's time was spent in exchanging responsibilities with other Agents.
4. Clinics. News writing, radio speaking, and television work are so new that Extension Agents often have had no training in them during college. Clinics, in which Agents practice speaking, and showing, and then see and hear themselves perform, are popular and helpful.

¹Joseph L. Matthews, "A Method for Determining the Training Need of County Agents as the Basis for Planning Training Programs". (Unpublished Ph.D. thesis, University of Chicago, 1950), p.58. (Cited by McCormick, p. 45.)

5. Studies. Since its beginning, the Extension Service has used county surveys to determine the extent of adoption of recommended practices by farm people. These and other studies of Extension are outstandingly effective methods of in-service education.
6. Field trips to experiment stations. Since the main function of Extension workers is to diffuse significant research findings in agriculture and home economics, and to encourage their acceptance, it is imperative that they be kept in touch with current developments in science. Regular and systematic field trips to observe experiments under way at college and Federal stations in a part of the in-service education program in all States.
7. District and State conference. Annual conferences, like the field trip, are perhaps among the oldest methods most generally used by States. District conferences on a more frequent schedule have substituted for the State conference in some instances.
8. Leader-training meetings. The Extension specialist's training of local leaders is an excellent vehicle for Agent training as well. In the home economics phases special attention has been given to the leader-training meeting as a way of expanding and improving Extension work.
9. Professional associations. County Extension Agents have banded themselves into three professional organizations. The National Association of County Agricultural Agents, the National Association of Home Demonstration Agents, and the National Association of County Club Agents are organized separately yet work cooperatively and assist each other in numerous ways. Each association has a professional improvement committee. These standing committees testify to the fact that through their own efforts Agents are seeking to raise the level of their work.¹

Literature shows that consideration has been given to the value of in-service training by Extension Agents in different states. Also, the Extension Services put much emphasis on this area of training - more than on any other area. Extension Services hold training sessions every year in order to try to improve the efficiency of their employees.

It is apparent that County agents have had different kinds of

¹Collings, op. cit., pp. 6-7.

experiences, and this means that in-service training needs are different from one County Agent to another. The area of in-service training will require much more research in order to give more information about in-service training needs.

2 - Graduate Training Needs. Graduate work in Extension Education for County Agents is becoming an essential part of every training program. The increase in job requirements, the complexity of the job, and the increasing number of Extension workers, all bring into focus the need for graduate work. Graduate study should be planned to improve the ability and skill of the Agent to do his job, or prepare him to do a better job.

Duncan in this treatise of training Cooperative Extension workers listed ten important factors giving rise to the need for graduate training in Extension Education. These factors were given by Leagans in a talk to the staff of the Federal Extension Service in 1956 and are as follows:

1. Standards for professional proficiency are constantly rising in all fields.
2. Effective Extension work results from choice not from chance.
3. It is an intricate and complex educational task today to design and execute Extension programs that significantly change the actions of large numbers of people.
4. Education is the central force in effective Extension work.
5. The central idea in Extension work for "helping people learn how to help themselves" has proven to be a "good idea".
6. Effective educational leadership requires that a gap exists between what the leaders know and can do and the followers know and can do.
7. It is not what a person merely knows, but what he becomes to believe that determines what he does when he is free to act as he chooses.
8. To raise the level of living of farm people requires that Extension gives attention to:

- (a) The family and its individual members,
 - (b) The home as a physical unit,
 - (c) The farm as a business enterprise, and
 - (d) The keeping of these in reasonable balance.
9. There are two major areas in which Extension workers must have adequate profession competence.
 - (a) Technical subject matter, or what to teach.
 - (b) Educational process, or how to teach.
 10. There is now developed a body of knowledge about Extension education that is being recognized by University graduate schools as a major field of study leading to both master's and doctor's degrees.

From the foregoing points Leagans draws four conclusions which seem quite defensible:

1. No longer is four years of undergraduate training in any field enough for Extension workers. There is too much to be known, there is too much we must know to permit an end of formalized study after four years of undergraduate work.
2. In-service training programs, at their best, are not adequate for the job.
3. Something "new" is now created in some of our graduate schools designed to meet the special professional needs of Extension workers.
4. Adequate training for Extension work requires increasing attention to advanced study.¹

✓ The ambitious Agent looks always to improve himself, in order that he might do a better job. One means of improvement is through graduate study. The Joint Committee Report in the following statement recommends graduate study as a manner of training most beneficial.

In recent years many graduate schools have attempted to arrange programs adapted to the need of Extension workers. Short-courses of from three to eight weeks have been provided. However, evidence points to the conclusion that graduate work for relatively short periods is not proportionally as beneficial as the more extended periods of study. Efforts should be made to provide leave

¹ Duncan, op. cit., pp. 40-41.

to Extension workers for graduate study on quarter or semester basis.¹

The most important responsibility of the Cooperative Extension Services is to keep their County Agents professionally equipped. It has been mentioned that each County Agent has different needs. The training necessary to meet those needs must be provided primarily on the job. Graduate work is becoming more important from year to year. This is due to the development of the Extension Service and the increased complexity of Extension work. Job requirements for the County Agent are increasing and this points out the need for higher training, such as graduate study.

A 1957 study showed that four-fifths of the County Agents in Texas not only thought that graduate training was important but actually indicated that they would take leave from their job to do some graduate work, if some financial aid was provided.²

A study conducted in Ohio by McCormick revealed that Extension Agents have been actively participating in graduate training programs. Two per cent of the Agricultural Agents have taken more than twenty hours of graduate work.³

A study made in Arkansas showed that 60 per cent of the Agricultural County Agents were interested in programs of graduate study toward a master's degree.⁴

The above studies show that there is a recognition of the need for

¹Joint Committee Report, op. cit., p. 46.

²Benjamin D. Cook, "Comparative Analysis of Training Needs of County Agricultural Agents in Texas" (unpublished Ph.D. thesis, University of Wisconsin, 1957, p. 160.

³McCormick, op. cit., p. 60.

⁴Price, op. cit., p. 45.

graduate training among Extension workers. This need has been increased over the past years.

Many attempts have been made to identify the kind of training that County Extension Agents would like to include in their advanced study program. This is a very important area and should be taken into consideration when planning any graduate program.

A study of male Ohio and Wisconsin Agents in 1949 showed the subjects that the Agents indicated they would take, if additional graduate training were taken. The following are the ten subjects, listed in rank order, that these Agents felt would be most helpful:

1. Extension education-psychology and principles of education.
2. Agriculture journalism--technical news writing.
3. Speech--group thinking and conference leadership.
4. Organization of soil and crop management systems.
5. Plant diseases control.
6. Advanced farm management.
7. Extension evaluation.
8. Principles of adult education.
9. Planning rural communication educational programs.
10. Rural youth and social living.¹

Cook found that the majority of Agricultural Agents who majored in technical agriculture as undergraduates expressed a desire to do their advanced study in technical agriculture. However, 45 per cent of those Agents majoring in technical agriculture as undergraduates expressed a

¹McCormick, op. cit., p. 49.

desire to do their advanced study in Extension Education or other Social Science fields. Other Agricultural Agents indicated that they were interested in taking graduate work in Extension, Sociology, and Psychology, if they were given opportunity to take such courses. Seventy per cent of all Agricultural Agents in this study, regardless of their undergraduate major, expressed the desire that they would like to do their graduate study in the Social Science area.¹

Harold Howe, Dean of Graduate School, Kansas State University and member of the Land-Grant College Committee on Pre-service and Graduate Training made a study of the graduate programs in Extension Education offered by Land-Grant Colleges. He stated that nine Land-Grant Institutions have programs leading to a master's degree in this field. Two of the nine Institutions offer work leading to the degree of Doctor of Philosophy. Howe suggested that the program of study for any one student should be one of planned and integrated study in a chosen field of concentration. He suggested that a study leading to a master's degree in Extension Education consist of a major (approximately two-thirds of program) in a combination of Extension study, Communication and Social Science and a minor (approximately one-third of program) in technical subject matter. Howe suggested that the thesis should be done in the major field and specifically in the area of Extension study. Howe defines "Extension study" as including course work in Adult Education and in Extension Philosophy, Principles, Methods, Organization and Evaluation.²

From the literature review, the writer found considerable emphasis on

¹Cook, op. cit., p. 154.

²Duncan, op. cit., pp. 42-43.

graduate training. Leagans emphasises this need by saying that a four year degree is no longer enough for Extension workers. In-service training is not adequate for the job. Graduate schools are now offering special training to fulfill the needs of Extension workers. Administrators and supervisors should give attention to graduate study and encourage Extension Agents to participate in graduate training. In addition, opportunities should be provided to Extension Agents so they can do graduate work in the desired field.

Summary

The literature review shows that training needs of the worker should be determined before building any training program. The reason is that training needs are different from one Agent to another. Therefore, all Extension Agents cannot be given the same training and the same treatment. Supervisors are responsible for the determination of the training needs of County Extension Agents. They should assist and guide county workers in their training programs.

Training areas are many and the need for training in the different areas are very important. The remaining problem is how to identify the training needs of County Extension Agents. There are many methods for identifying training needs, but an effort should be made to develop aids and devices for the supervisors to use in identifying the training needs of County Extension Agents. This research study is directed toward this purpose.

CHAPTER III

SITUATIONAL FACTORS RELATIVE TO TRAINING OF KANSAS AGRICULTURAL EXTENSION AGENTS

It was indicated in the introduction of this paper that the purpose of this study was to analyze training needs of the Agricultural Extension Agents in Kansas. An analysis of the personal and situational factors relating to the respondents will help to clarify some of the findings of this research study. In addition, some of the findings may have application to other states which have situations similar to Kansas.

The author recognizes that the situations of the Kansas Agricultural Extension Agents will change from year to year, but the questionnaire patterned after McCormick's¹ was used to determine the existing situations in Kansas in the year 1962.

The purpose of this chapter is to analyze the personal and situational factors relative to Kansas Agricultural Extension Agents who responded to the questionnaire. The analysis includes:

- a. Tenure or length of time employed.
- b. Degrees held by the Agricultural Extension Agents employed currently in Kansas.
- c. Major subject areas of agriculture emphasized in undergraduate major.
- d. Amount of graduate work completed by the Agents toward graduate degrees, and the interest of Agricultural Extension Agents in graduate study.

¹McCormick, op. cit., pp. 209-226.

- e. Institutions from which Kansas Agricultural Extension Agents obtained their undergraduate degrees.
- f. Agent's opinions of their role as educational or non-educational.

Tenure

Table 2 shows the frequency distribution and percentages of Kansas Agricultural Extension Agents who responded to the questionnaire in the various tenure groups. Number of years of employment has been carried to the nearest year.

TABLE 2.—Tenure of Kansas County Agricultural Extension Agents, July 1, 1942.
N = 98

Tenure ^a	County Agricultural Agent	
	Number	Per Cent
Less than one year	1	1.0
1 - 5 years	32	32.7
6 - 10 years	33	33.7
11 - 15 years	16	16.3
16 - 20 years	7	7.1
21 - 25 years	4	4.1
26 - 30 years	4	4.1
Over 30 years	1	1.0
Total	98	100

^aTo the nearest completed year.

The data show that 32.7 per cent of Kansas Agricultural Extension Agents who responded to this study had less than six years of tenure. Thirty

three per cent of the Agricultural Agents had over ten years service. Thirty three per cent of the Agents had 6-10 years service. Only one Agent had less than one year of service.

Undergraduate Major of Agents

All Agricultural Extension Agents employed by the Kansas Cooperative Extension Service have bachelor's degree in agriculture. While Kansas State University does not have an undergraduate major in Cooperative Extension work, there are courses in Extension Education such as Extension Organisation and Policies and Extension Teaching Methods taught on the campus. These courses give an introduction to the Cooperative Extension work, to those students who are considering Extension as a career.

The highest per cent of Agricultural Extension Agents majored in Animal Husbandry in their undergraduate work. Table 3 shows the frequency distribution and percentage of Kansas Agricultural Extension Agents in the different fields of study.

TABLE 3.—Undergraduate Major of Kansas Agricultural Extension Agents, July 1, 1962.

N = 98

Undergraduate Major Field	County Agricultural Agents	
	Number	Per Cent
Agriculture Economics	22	22
Agriculture Education	18	18
Agronomy	15	15
Animal Husbandry	30	30
Dairy	5	5
Others	10	10
Total	100*	100

*Two Agents have double majors.

The data show that 30 per cent of the Agricultural Extension Agents in Kansas who responded to this study majored in Animal Husbandry. Over one-fourth of the Agricultural Extension Agents majored in Agricultural Economics, eighteen per cent majored in Agricultural Education and fifteen per cent majored in Agronomy. Only five per cent of the Agricultural Extension Agents majored in Dairy, and 10 per cent majored in other fields.

Table 4 shows the frequency distribution and percentages of the Kansas Agricultural Extension Agents in this study who obtained their undergraduate degrees at various institutions.

TABLE 4.—Institutions at which Kansas Agricultural Extension Agents obtained their undergraduate degrees, July 1, 1962.

N = 98

Institution	County Agricultural Agent	
	Number	Per Cent
Kansas State University	73	73.7
Other Kansas Schools	1	1.0
Oklahoma State University	20	20.2
University of Missouri	2	2.0
Colorado State University	-	-
University of Nebraska	2	2.0
Other out of State School	1	1.0
Total	99*	100

*One Agent has a degree from two different schools.

Many of the Kansas Agricultural Extension Agents who responded to the questionnaire obtained their undergraduate training at institutions other than the Kansas State University. This means that about 26 per cent of the Kansas Agricultural Extension Agents have been exposed to curricula other than that of Kansas State University.

Many of the Kansas Agricultural Extension Agents were graduates of Oklahoma State University. The data shows that about three-fourths of the Kansas Agricultural Extension Agents received their undergraduate training at the Kansas State University. One-fifth of the respondents received their undergraduate training at Oklahoma State University. The remainder of the respondents received their undergraduate training at the University of Missouri, the University of Nebraska, other Kansas schools, and other out of state schools.

The above data show that Kansas State University is the primary institution for undergraduate training of Kansas Agricultural Extension Agents. Other institutions, primarily out of state, provide approximately 25 per cent of the undergraduate training for Kansas Agricultural Extension Agents.

Graduate Training of Agents

Graduate training is a vital part of the total training program of the Kansas Extension Service. Agents interested in graduate training may apply for sabbatical leave after six years of employment with Kansas State University. Sabbatical leaves are granted for study on a one year's basis at half pay or five months at full pay.

Table 3 shows the frequency distribution and the percentage of Kansas

Agricultural Agents who hold master's or bachelor's degrees listed by district. The distribution of Agents with master's degrees varied, with Southwest district having the highest percentage, and the Central district having the lowest percentage of Agents with master's degree. The data also show that 84 of the Agricultural Agents hold a bachelor's degree, and only 14 Agricultural Agents included in this study have earned a master's degree.

TABLE 5.—Kansas Agricultural Extension Agents holding master's or bachelor's degrees listed by district, July 1, 1962.

N = 98

District	Number and PerCent of Agents Holding Master's Degrees		Number and Per Cent of Agents Holding Bachelor's Degrees Only	
	Number	Per Cent	Number	Per Cent
Northeast	3	21.4	16	78.6
Southeast	3	21.4	17	78.6
Central	1	7.1	20	92.9
Northwest	3	21.4	16	78.6
Southwest	4	28.6	15	71.4
Total	14	99.9 ^a	84	

^aPercentages did not add to one hundred, because a percentage table was used.

The data show that 14 per cent of the Kansas Agricultural Extension Agents included in this study have earned master's degrees. This per cent is considered high if compared with the nine per cent of the Agricultural Agents who earned master's degree in Arkansas¹, on the other hand the per cent is

¹
Price, op. cit., p. 29.

considered low if compared with the 14.3 per cent of the Ohio Agricultural Extension Agents who earned master's degree,¹ and the 17 per cent of the Agricultural Extension Agents in the United States who earned master's degrees.²

Table 6 shows the semester hours of graduate training completed by Kansas Agricultural Extension Agents included in this study July 1, 1962. Semester hour is the term used at Kansas State University for expressing the amount of graduate training completed by Agricultural Extension Agents.

TABLE 6.--Semester hours of graduate training completed by Kansas Agricultural Extension Agents, July 1, 1962.

N = 98

Semester Hours of Graduate Training Completed	County Agricultural Agent	
	Number	Per cent
None	37	37.8
One to six	28	28.6
Seven to twelve	13	13.3
Thirteen to eighteen	1	1.0
Nineteen to twenty four	—	—
Twenty four to thirty	4	4.1
Over thirty	15	15.3
Total	98	100.1*

*Percentages do not equal one hundred because a percentage table was used.

¹McCormick, *op. cit.*, p. 29.

²Gurtis Trent, *Forward Through Training*, Cooperative Extension Service, Kansas State University, Manhattan, Kansas, May, 1962, No. 5, p. 2.

The data show that Kansas Agricultural Extension Agents have been participating in graduate training programs. Only 37.6 per cent of respondents have not participated in any graduate work. Participation of respondents in graduate training programs was not high. Only 19 per cent of the respondents have taken more than twenty-four hours of graduate training. Fifteen to sixteen hours of graduate study is approximately one-half of the requirements for a master's degree at Kansas State University.

The data show that 62 per cent of Kansas Agricultural Extension Agents participated in graduate training while 14 per cent of the respondents have earned a master's degree.

Job Perception as a Factor in Training

One of the basic factors shown to be related to training in the Ohio Extension Service was that of the perception of the Agents of their role as an Agent. An understanding of what one's job is, what is expected of one by the people with whom he works in the county and what is expected of one by his supervisors in the Extension Service is a matter of prime importance.¹ The most important point of whether or not Agricultural Extension Agents in Kansas viewed their professional role as that of an educator is discussed in this chapter. This point is considered very important and may have a bearing on the training needs expressed by the respondents.

In the Extension Service Review, the Federal Extension Service indicates that the role of the Extension Service is educational and the role of the

¹MacGonick, op. cit., p. 60.

Agent is education.

The following statement appears each month in the top of the first page:

The Extension Service Review is for Extension educators - in County, State and Federal Extension agencies - who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their community.¹

Since the Extension Service Review indicated that the role of the County Extension Agent is education, a list of the five statements included in the questionnaire of this study was used to determine the opinions of Kansas Agricultural Extension Agents as to their role. The following role statements were included:

1. A professional agriculturist available to provide information to the people in your county.
2. A professional agriculturist providing service to the people of your county.
3. A professional educator developing educational programs with people to effect behavior changes in the people in your county.
4. A professional educator developing programs to help people to help themselves.
5. A professional organizer of educational activities for the people of your county.

Statements 1, 2, and 5 in the above list were designed to show that the respondents to those items considered themselves non-educators. All Agents who selected the above three items have been considered playing the non-educational role.

¹The Extension Service Review, Vol. 31, No. 12, December 1960, p. 234.

Statements 3 and 4 in the above list were designed to show that the respondents to those items considered themselves educators. All Agents who selected the above two items have been considered playing the educational role.

Agricultural Extension Agents were asked to select the statement which best described the role they had been performing in their county previous to this study.

Table 7 shows how the Kansas Agricultural Extension Agents perceived their role as an Agricultural Agent. Thirteen per cent of Agricultural Extension Agents perceived their role as that of professional agriculturist, providing information. Six per cent perceived their role as a professional agriculturist providing service to people. Four per cent perceived their role as professional organizers of educational activities.

TABLE 7.--Kansas Agricultural Extension Agents perception of their professional role

N = 98

Role Perception of Agents	Agricultural Extension Agent	
	Number	Per Cent
Professional agriculturist, home economist or youth worker providing information.	13	13.3
Professional agriculturist, home economist or youth worker providing service to people.	6	6.1
Professional educator developing educational programs to effect behavior change in people.	46	46.9
Professional educator developing programs to help people help themselves.	29	29.6
Professional organizer of educational activities.	4	4.1
Total	98	100

Over 23 per cent of the Agricultural Extension Agents perceived their job as that of non-educators. This indicates that those Agents need more training to clarify the role they should play to help farmers.

These data show that over 76 per cent of the Kansas Agricultural Extension Agents perceived their role as that of an educator. This is considered to be a high percentage of Agents who hold the same opinion as the Editor of the Extension Service Review. Over 23 per cent of the Agents perceived their role as that of non-educators. The questions which arise here are: What group of Agricultural Extension Agents perform their job more effectively? Do the non-educator Agents perform as well as the educator? What are some of the factors associated with a non-educational perception of the job of an Agricultural Extension Agent? These areas are examined in the following pages.

Relationship of Job Perception to Undergraduate Training

This study has shown that a high percentage of Kansas Agricultural Extension Agents majored in five different fields of Agriculture in their undergraduate training. Thirty per cent of the respondents majored in Animal Husbandry, 22 per cent majored in Agricultural Economics, 18 per cent majored in Agricultural Education, 15 per cent majored in Agronomy and five per cent majored in Dairy. The question here arises, does this undergraduate training have any relationship to job perception.

Table 8 shows the relationship of job perception to the undergraduate field of training of Kansas Agricultural Extension Agents. The data show that there was relatively little difference by undergraduate majors in the

TABLE 8.—Relationship of job perception of undergraduate field of training of Kansas Agricultural Extension Agents.

N = 98

Job Perception of the Agents	Undergraduate Field of Training									
	Agricultural Sciences		Agricultural Education		Agricultural Agency		Animal Hus- bandry		Dairy	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Education	16	80	14	82.4	13	86.7	19	63.3	4	80
Non-educational	4	20	3	17.6	2	13.3	11	36.7	1	20
Total	20	100	17	100	15	100	30	100	5	100

percentage of Agents who perceived their job as educational. The Agents who majored in Agronomy and Agricultural Education had the highest percentage of those who perceived their job as an educator. The differences may not be important for the reason that all Agricultural Extension Agents in all tenure groups were included.

Relation of Job Perception to Graduate Training

This section of the study includes two parts. The first represents an analysis of the relationship of job perception of Kansas Agricultural Extension Agents to the amount of graduate training received by Agents as expressed in terms of academic degree. The second part is an analysis of the relationship of job perception to graduate training completed by Agricultural Extension Agents expressed in semester hours of graduate training. The division was made in terms of those Agents with less than nineteen semester hours of graduate training completed and those Agents with nineteen or more semester hours of graduate work completed.

Table 9 shows a comparison of job perception of Kansas Agricultural Extension Agents with the amount of graduate training they had received as expressed by master's degrees. The data in this table show that a higher percentage of the Agricultural Extension Agent who held master's degrees perceived their role as educational in comparison with those Agents who held only a bachelor's degree. Ninety-two point nine per cent of the Agricultural Extension Agents who held master's degree perceived their role as educational compared to 7.1 per cent who perceived their job as non-educational. Seventy-two point eight per cent of the Agricultural Extension Agents who held bachelor's degree perceived their role as educational compared with 27.2 per cent who perceived their job as non-educational.

TABLE 9.—Relationship of job perception of Kansas Agricultural Extension Agents to the amount of graduate training received by Agents as expressed by academic degrees.

N = 95^a

Job Perception of Agents	Academic Degrees Held			
	Bachelor's Degree		Master's Degree	
	Number	Per Cent	Number	Per Cent
Educational Role	59	72.8	13	92.9
Non-educational Role	22	27.2	1	7.1
Total	81	100	14	100

^aThree of the Agents did not respond to the job perception items on the questionnaire.

Table 10 shows the relationship of job perception of Kansas Agricultural Extension Agents compared with graduate training completed as expressed by the number of semester hours of graduate work completed.

TABLE 10.—Relationship of job perception of Kansas Agricultural Extension Agents to graduate training completed expressed in semester hours of graduate work.

N = 95^a

Job Perceptions of Agents	Semester Hours of Graduate Work Completed			
	0 through 18 hours		19 hours and over	
	Number	Per Cent	Number	Per Cent
Educational Role	56	72.7	16	88.9
Non-educational role	21	27.3	2	11.1
Total	77	100	18	100

^aThree of the Agents did not respond to the job perception items on the questionnaire.

The data in this table show that a higher percentage of Kansas Agricultural Extension Agents with over 19 hours of graduate work completed view their role as an educational one more than those Agents who completed less than 19 hours of graduate work. The data emphasize that people with 19 hours or more of graduate training tend to see their role as that of an educator more than those with less than 18 hours of graduate work.

Relationship of Job Perception to Tenure

An analysis of the relationship of tenure to job perception of Kansas Agricultural Extension Agents was made in this study. Tenure was associated only slightly with the Agent's perception of his job. Tenure may be considered a rough measure of the in-service training an Agricultural Extension Agent has received.

Table 11 shows the relationship of job perception of Kansas Agricultural Extension Agents to their tenure in the Cooperative Extension Service. The data in this table shows that the middle group of 6 to 20 years tenure include the highest percentage of the Kansas Agricultural Extension Agents who perceived their role as educational. The same group has the lowest percentage of Agents who perceived their role as non-educational. The two groups with 21 years and over, and 0 to 5 years of tenure included 75 per cent of the Agricultural Extension Agents who perceived their role as educational.

TABLE 11.--Relationship of job perceptions of Kansas Agricultural Extension Agents to their tenure in the Cooperative Extension Service.

N = 95^a

Job Perception of Agents	Years of Tenure of Agents in Extension					
	0 to 5 Years		6 to 20 Years		21 Years and Over	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
Educational Role	24	75.0	42	76.4	6	75.0
Non-educational role	8	25.0	13	23.6	2	25.0
Total	32	100	55	100	8	100

^aThree of the Agents did not respond to the job perception item on the questionnaire.

Summary

The following is a brief summary of the results of the analysis of the data presented in this chapter:

1. Kansas State University is the primary institution for the undergraduate training of Kansas Agricultural Extension Agents.
2. Kansas Agricultural Extension Agents are participating in graduate training programs. Fourteen per cent of the Agricultural Agents have earned a master's degree.
3. Thirty per cent of the Kansas Agricultural Extension Agents majored in Animal Husbandry. This was the highest percentage compared with other agricultural fields.
4. Approximately 76 per cent of the Kansas Agricultural Extension Agents perceived their role as that of educators, while 24 per cent perceived their role as that of non-educators.

5. Graduate training and a master's degree increase slightly the probability of an Agent perceiving his role as that of an educator.
6. Agents with 6 to 20 years of tenure perceived their role as that of an educator to a slightly higher degree than any other tenure group.

CHAPTER IV

EXPRESSED TRAINING NEEDS OF KANSAS AGRICULTURAL EXTENSION AGENTS IN THE NINE GENERAL AREAS OF COMPETENCY

This chapter is devoted to the analysis of the expressed training needs of Kansas Agricultural Extension Agents in the general areas of competency identified by the National Task Force on Cooperative Extension In-Service Training. The main objective of this chapter is to determine the importance of the nine general areas of competency as reflected by Kansas Agricultural Extension Agents' opinions of the importance of those items to Agent's success in their job performance.

The findings in this chapter will be helpful to Kansas Extension Supervisors, Resident staff and Administrators. However, the methods used in identifying the training needs of Kansas Agricultural Extension Agents, may have implications for Extension Services throughout the country.

The data were analyzed for Kansas Agricultural Extension Agents who responded to the questionnaire. The data were taken from the responses of 98 Kansas Agricultural Extension Agents. Descriptive statistics were used in the study. Mean weighted scores, rank order, percentage distribution and rank order correlations have been used throughout the chapter. The procedure used in arriving at the mean weighted score was:

1. Values were assigned to each of the categories on the original questionnaire (See appendix). A four value was assigned to the "need very much training" category, a three value was assigned to the "need much training", a two value was assigned to the "need some training" category, and a one value was assigned to the "feel I understand" category.

2. Equal distances between the various categoriss were assumed.
3. The number of Agents responding in each category to each item on the scale was multiplied by the assigned value of that category.
4. The product was divided by the total-number of respondents to the four categoriss to which values were assigned.
5. If an Agent failed to respond to an item or indicated that the item was "no applicable to my job" the Agent was not included in the total number of Agents responding to the item.

In the scale dealing with the importance of the nine general areas, a value of one was assigned to the "not important" category, a value of two to the "would be helpful" category, a value of three to the "highly desirable" category, and a value of four to the "absolutely essential" category. The same procedures were used in determining the mean weighted score for each item.

(rho), a measure of rank order correlation, has been used as a descriptive statistic in this chapter and the succeeding one to show the degree of relationship or association between rank orders. The author used the Spearman rank correlation coefficient formula to compute the correlations. The formula is:

$$rs = 1 - \frac{6 \times \sum di^2}{N^3 - N}$$

To compute rs. make a list of N subjects. Next to each subject's entry his rank for X variables and his rank for Y variables. Determine then the various values of di = the difference between the two ranks. Square each di , and then sum all values of di to obtain $\sum di^2$. Then enter this value

and the value of N (the number of subjects) directly to the above formula.¹

Hypotheses are stated at the beginning of each area. After computing the data, rank order correlations were computed in order to accept or reject the null hypotheses. The author accepted the hypotheses when the correlation was below the level .600 and rejected it when the correlation was above .600.

Comparison of Training Needs of Kansas
Agricultural Extension Agents Among the
Nine General Areas of Competency

Training Needs and the Importance of the Nine Areas:

Hypothesis 1: There is no relationship between the amount of training needed by Kansas Agricultural Extension Agents in each of the nine areas of competency and the Agent's perception of the importance of that area.

Table 12 shows Kansas Agricultural Extension Agents' perception of their training needs in the nine areas of competency compared with their perception of the importance of those areas. The Agricultural Extension Agents ranked the following as the top three areas in which they needed training:

1. Technical knowledge.
2. Research.
3. Effective thinking.

¹Sidney Siegel, Non-parametric Statistics for the Behavioral Science. New York: McGraw Hill Book Co., Inc. 1956, p. 206.

TABLE 12. Kansas Agricultural Extension Agents' perception of their training needs in the nine areas of competency compared with their perception of the importance of these areas.

N = 98

Areas of Competency	Rank Orders and Weighted Scores of Agent's Training Needs Compared with Importance			
	Training Needs		Importance	
	Weighted Score	Rank	Weighted Score	Rank
Technical knowledge	2.40	1	3.51	1
Research	2.22	2	2.87	5
Effective thinking	2.18	3	2.72	7
Program planning and development	1.92	4	2.91	4
Human development	1.94	5	2.53	8
Communication	1.91	6	3.24	3
The educational process	1.86	7	2.81	6
Social systems	1.80	8	2.45	9
Extension organization and administration	1.66	9	3.26	2

The following areas were considered by the Kansas Agricultural Extension Agents to be the three areas in which it was most important for Agents to be trained, in order to be successful in performing their job:

1. Technical knowledge.
2. Extension organization and administration.
3. Communication.

The area of "Extension organization and administration" was rated last on the basis of need for training, while the area of "social systems" was rated last in terms of importance by Kansas Agricultural Extension Agents.

The rank order correlation between training needed by Agricultural Extension Agents and the importance of those areas to Agents' effectiveness was: .216. This correlation is actual because it represents the whole population. This correlation is low.

The hypothesis was accepted. Because the degree of relationship was very low this would indicate that there was no important relationship between expressed training needs and importance of the area to Agents' effectiveness.

The above results need not be too surprising, because the Agricultural Extension Agents may have had some training in many of the areas which they consider important in performing their job.

Training Needs Compared by Tenure

Hypothesis 2: There is no relationship between the ranking of the nine general areas of competency on the basis of the amount of training needed by Kansas Agricultural Extension Agents and tenure.

Table 13 shows the opinions of Kansas Agricultural Extension Agents relative to their training needs in the nine general areas of competency compared by tenure groups.

Agricultural Extension Agents with less than one to ten years tenure ranked the three general areas of training in which they felt the greatest need for training as follows:

1. Technical knowledge.
2. Effective thinking.
3. Research.

TABLE 10.—Kansas Agricultural Extension Agents' perception of their training needs in the nine areas of competency compared by female groups.
N = 98

Areas of Competency	Ranks and Weighted Scores by Female Groups Less than One to Ten				Ranks and Weighted Scores by Female Groups Eleven to Twenty				Ranks and Weighted Scores by Female Groups Twenty-one and Over			
	N: 65				N: 23				N: 9			
	Weighted Score	Rank	Weighted Score	Rank	Weighted Score	Rank	Weighted Score	Rank	Weighted Score	Rank	Weighted Score	Rank
Technical Knowledge	2.42	1	2.39	1	2.50	1	2.50	1				
Effective thinking	2.31	2	1.95	3	1.97	3	1.97	3				
Research	2.14	3	2.30	2	2.37	2	2.37	2				
Human development	2.06	4	1.65	7	1.75	7	1.75	6				
Program planning and development	2.00	5	1.81	5	2.12	5	2.12	3				
The educational process	1.93	6	1.73	6	1.50	6	1.50	8				
Social systems	1.89	7.5	1.63	8	1.50	8	1.50	8				
Communication	1.89	7.5	1.91	4	2.00	4	2.00	4				
Extension organization and administration	1.73	9	1.47	9	1.50	9	1.50	8				

Agricultural Extension Agents having from eleven to twenty years of tenure listed the following areas as the three most important in terms of their training needs:

1. Technical knowledge.
2. Research.
3. Effective thinking.

Agricultural Extension Agents in the twenty one and over years of tenure group felt that the following three areas were the areas in which Agents need most training:

1. Technical knowledge.
2. Research.
3. Program planning and development.

The following rank order correlations were computed between the training needs of Agents in the various tenure groups:

Less than one year to ten years and eleven to twenty years	.804
Eleven to twenty years and twenty one years and over	.863
Less than one year to ten years and twenty one years and over	.704

The above rank order correlations show that the lowest correlation was between the less than one year to ten years and twenty one years and over. The correlations in all three areas were high.

The hypothesis was rejected. The data presented suggests that training needs of Agricultural Extension Agents vary somewhat among different tenure groups, and this difference, though slight, may be an important point to consider when planning training programs.

Training Needs and Job Perception Groups.

Hypothesis 3: There is no relationship in the ranking of the nine areas of training needed by Kansas Agricultural Extension Agents compared by job perception groups.

Table 14 shows the opinions of Kansas Agricultural Extension Agents relative to the perception of the training needs in the nine general areas of competency compared by job perception groups.

Agricultural Extension Agents who perceived their job as educational felt that the following areas were the most important in terms of their training needs.

1. Technical knowledge.
2. Effective thinking.
3. Research.

Agricultural Extension Agents who perceived their role as non-educational indicated the greatest intensity of need for training in the following areas:

1. Technical knowledge.
2. Research.
3. Effective thinking.

An analysis of the data in Table 14 showed, however, three areas of competency where little disagreement occurred between the Agents who perceived their role as educational and those who perceived their role as non-educational.

The area of "Extension organization and administration" was rated last by Agricultural Extension Agents who perceived their role as educational and by Agents who perceived their role as non-educational.

TABLE 14. Kansas Agricultural Extension Agents perception of their training needs in the nine areas of competency by job perception groups.
N = 98

Areas of Competency	Ranks and Weighted Scores by Job Perception Groups			
	Educational Role		Non-educational Role	
	N: 75		N: 23	
	Weighted Score	Rank	Weighted Score	Rank
Technical knowledge	2.40	1	2.41	1
Affective thinking	2.23	2	2.13	3
Research	2.19	3	2.26	2
Human development	2.07	4	1.80	8
Program planning and development	2.01	5	1.95	4.5
The educational process	1.94	6	1.82	7
Communication	1.88	7	1.95	4.5
Social systems	1.76	8	1.84	6
Extension organization and administration	1.64	9	1.68	9

The rank order correlations of the training needs between Kansas Agricultural Extension Agents who perceived their job as educational and those who perceived their job as non-educational was .754. This was a high correlation between the ranking of training needs of the Agents who perceived their role as educational and those Agents who perceived their role as non-educational.

The hypothesis was rejected. The relationship was not strong but it suggests that training needs of Agents vary somewhat among different perception groups. This is an important point to consider when planning training programs.

Training Needs and Graduate Training.

Hypothesis 4: There is no relationship between the amount of training needed by the Kansas Agricultural Extension Agents in each of the nine areas of competency and the graduate training desired.

Table 15 indicates the Agricultural Extension Agents' ranking of the nine general areas of competency in terms of graduate training the Agents desire to take in each area when he takes his leave of absence.

Each Agricultural Extension Agent had been asked to indicate no more than three sub-items in each of the nine general areas of competency in which he desired to take graduate training when his next leave of absence for advanced study from the Kansas Extension Service became available. This meant that the greatest number of responses under each of the nine general areas of competency was 96×3 or 294. The actual number of responses under each of the nine general areas of competency is listed in Table 15. The percentage figure is based upon the percentage of the actual responses. The three areas that received the greatest number of responses in terms of graduate training desired in the nine general areas of competency were:

1. Effective thinking.
2. Human development.
3. Social systems.

The implications from the following data show that Kansas Agricultural Extension Agents do not desire to take graduate training, to a great extent, in the nine general areas of competency in which they felt the greatest need for training. Advisors for graduate programs should be aware of the training needs of the Agricultural Extension Agents as indicated on the

questionnaire used for this study, so they can provide the most useful graduate training program. Other implications to this study are: Supervisors should meet with Agricultural Extension Agents to find out what kind of training Agents need as they prepare to take their leaves of absence.

TABLE 15. Graduate training desired by Kanene Agricultural Extension Agents in the nine areas of competency.

N = 98

Areas of Competency	Positive Responses of Agents on Graduate Training Desired		
	Number	Per Cent of Potential	Rank
Effective thinking	144	55.8	1
Human development	94	32.0	2
Social systems	90	30.6	3
Program planning and development	86	29.9	4
Extension organization and administration	73	24.8	5.5
Technical knowledge	73	24.8	5.5
Communication	61	20.7	7
The educational process	57	19.4	8.5
Research	57	19.4	8.5

The rank order correlation between the Agents' ranking of the nine areas of competency on the basis of the training needs in those areas and the ranking of the nine areas on the basis of the graduate training Agents desired to take when they take their leave of absence was .058.

The hypothesis was accepted. The degree of relationship was very low and this indicates that there was no important relationship between the training needs of Agents and graduate training desired.

Training Needs and In-Service Training.

Hypothesis 5: There is no relationship between the amount of training needed by Kansas Agricultural Extension Agents in each of the nine general areas of competency and the in-service training desired.

Table 16 shows the rank order of the nine general areas of competency by Kansas Agricultural Extension Agents in terms of the in-service training Agents desired to include in their district next year. The procedures used in finding this ranking of areas were the same procedures used in Table 15.

The following were the most important three areas which Kansas Agricultural Extension Agents desire to include in their in-service training in the district next year:

1. Effective thinking.
2. Extension organization and administration.
3. Human development.

The implications from the above data indicate that Kansas Agricultural Extension Agents desire to participate in in-service training to a greater degree than graduate training. (Compare Table 15 with Table 16) Another implication is that there is a need for Supervisors to council with Agents in order that they may become aware of their in-service training needs as they prepare to participate in training programs.

TABLE 16. In-service training desired by Kansas Agricultural Extension Agents in the nine areas of competency.

N = 98

Area of Competency	Positive Responses of Agents on In-Service Training Desired		
	N = 98		
	Number	Per Cent Potential	Rank
Effective thinking	216	73.5	1
Extension organization and administration	175	59.5	2
Human development	154	52.4	3
Communication	148	50.3	4
Research	130	44.2	5
Technical knowledge	122	41.5	6
Program planning and development	121	41.2	7
Social systems	113	38.4	8
The educational process	79	26.9	9

The rank order correlation between the Agents' ranking of the nine areas of competency on the basis of the training Agricultural Extension Agents felt they needed and their ranking of the areas on the basis of the in-service training they desired to include in their in-service training program at the district level was .100. This descriptive statistics was very low, and this indicates that there was very little correlation between the above areas.

The hypothesis was accepted. The degree of relationship was very low and indicates no important relationship between the expressed training needs of Agricultural Agents and in-service training desired.

Summary

The following were the major findings revealed by an analysis of the data presented in this chapter.

1. Kansas Agricultural Extension Agents felt they needed the most training in:
 - a. Technical knowledge.
 - b. Research.
 - c. Effective thinking.
2. Training needs of Agricultural Agents seemed to vary somewhat between different tenure groups.
3. Whether or not an Agent perceived his job as that of an educator had little effect upon his ranking of the nine areas of competency on the basis of the training needed.
4. Kansas Agricultural Extension Agents do not desire to take graduate training nor desire to take in-service training on the district level to any great extent in the areas of competency in which they expressed the greatest need.
5. There was a relatively low degree of relationship between the general areas of competency that Kansas Agricultural Extension Agents felt were important and the general areas in which Agents felt they needed training.

CHAPTER V

EXPRESSED TRAINING NEEDS OF KANSAS AGRICULTURAL EXTENSION AGENTS IN THE SPECIFIC AREAS OF COMPETENCY

Chapter four outlines Kansas Agricultural Extension Agents' opinions as to their training needs in the nine general areas of competency identified by the National Task Force on Cooperative In-Service Training. Chapter four does not give detailed information for the specific training needs within each of the nine general areas of competency.

This chapter presents an analysis of the expressed training needs of Kansas Agricultural Extension Agents in the specific areas of training listed under the nine general areas of competency identified by the National Task Force on Cooperative In-Service Training.

The data in this chapter were taken from the responses of 98 Kansas Agricultural Extension Agents. Descriptive statistics have been used throughout the chapter. Mean weighted scores, rank order, percentage distribution and rank order correlation were used. The procedures used to compute weighted scores and rank order correlation in chapter four were used in this chapter.

Each of the nine general areas of competency was analyzed to determine the specific training needs of Agricultural Extension Agents. The analysis of the data in this chapter involved the Kansas Agricultural Extension Agents' ranking of the specific areas listed under each of the general competency areas. The ranking was based on three things:

1. Expressed training needs of Kansas Agricultural Extension Agents.
2. Graduate training which Kansas Agricultural Extension Agents desire to take when they take their next leave of absence.

3. In-service training which Kansas Agricultural Extension Agents desire to take during next year's in-service training program.

Spearman's formula¹, used in chapter four to compute the rank order correlations, has been used in this chapter to compute the rank order correlations between:

1. The specific training needs of Kansas Agricultural Extension Agents within each general area of competency and the graduate training desired by the Agents.
2. The specific training needs of Kansas Agricultural Extension Agents within each general area of competency and the in-service training desired for next year's district training programs.

The analysis of the specific areas of training needs within the nine general areas of competency has been discussed in the same order as the Agent ranking of the nine areas of competency.

Agricultural Subject Matter

Table 17 shows the rank order and the weighted scores of the specific training needs of Kansas Agricultural Extension Agents within the general area of "Agricultural subject matter". The following were the three specific areas in "Agricultural subject matter" in which Agricultural Extension Agents indicated the greatest need for training:

1. Agricultural Marketing (includes livestock, grain, dairy and poultry).

¹ Megel, op. cit., p. 206.

TABLE 17. Kansas Agricultural Extension Agents' opinions of their training needs in the general area of Agricultural subject matter.

Specific Area of Training	Rank Orders and Weighted Scores of Agents	
	Weighted Score	Rank
Agricultural Marketing. (include livestock, grain, dairy and poultry).	2.90	1
Agricultural Credit	2.41	2
Plant Pathology	2.39	3
Farm Management	2.37	4.5
Agricultural Engineering. (includes machinery, buildings and drainage).	2.37	4.5
Animal Science	2.30	6
Entomology	2.30	7
Horticulture. (includes pomology and vegetable crops).	2.27	8
Agronomy. (includes crops, soil, fertilizers)	2.23	9
Floriculture	2.19	10
Consumer Marketing. (market information for consumer)	2.03	11
Dairy Technology	1.99	12
Dairy Science	1.97	13
Poultry	1.79	14
Soil Conservation	1.63	15

2. Agricultural Credit.

3. Plant Pathology.

Table 18 shows the Agricultural Extension Agents' ranking of the specific areas in "Agricultural subject matter" which they desire to include in their graduate training. The following were the most important three specific areas of "Agricultural subject matter" which Agricultural Extension Agents desire to include in their graduate program when they take their leaves of absence:

1. Animal Science.
2. Farm Management.
3. Agricultural Marketing (includes livestock, grain, dairy and poultry).

Table 19 shows the Agricultural Extension Agents' ranking of the specific areas in "Agricultural subject matter" that they desire to include in next year's in-service training program. The following were the most important three specific areas which Agents indicated that they desire to include in their in-service training program in their district:

1. Animal Science.
2. Agronomy (includes crops, soil, fertilizers).
3. Agricultural Marketing (includes livestock, grain, dairy and poultry).

The rank order correlation between the training needs desired by Kansas Agricultural Extension Agents and the graduate training they desire to take in this area when they take their leave of absence was .746. The rank order correlation between the training needs desired and the in-service training Agents desire to include in their district in-service training program was .776.

TABLE 10. Graduate training desired by Kansas Agricultural Extension Agents in the general area of Agricultural subject matter.

Specific Area of Training	Agents' Desire for Graduate Training		
	Number	Per Cent	Rank
Animal Science	32	32.7	1
Farm Management	27	27.6	2
Agricultural Marketing. (includes livestock, grain, dairy and poultry)	25	25.5	3
Agronomy. (includes crops, soils, fertilisers).	24	24.5	4
Agricultural Credit	20	20.4	5
Horticulture. (includes pomology and vegetable crops).	8	8.2	6
Agricultural Engineering. (includes machinery, buildings and drainage).	6	6.1	7.5
Entomology	6	6.1	7.5
Dairy Science	5	5.1	9.5
Plant Pathology	5	5.1	9.5
Floriculture	3	3.1	11
Consumer Marketing. (Market information for consumer).	2	2.0	12
Soil Conservation	1	1.0	13
Dairy Technology	0	0.0	14.5
Poultry	0	0.0	14.5

TABLE 19.—In-service training desired by Kansas Agricultural Extension Agents in the general area of Agricultural subject matter.

Specific Area of Training	Agents' Desire for In-Service Training		
	Number	Per Cent	Rank
Animal Science	33	33.7	1
Agronomy. (includes crops, soil, fertilizers)	29	29.6	2
Agricultural Marketing. (includes livestock, grain, dairy and poultry)	24	24.5	3
Farm Management	23	23.5	4
Agricultural Credit	22	22.4	5
Agricultural Engineering. (includes machinery, buildings and drainage)	18	18.4	6.5
Plant Pathology	18	18.4	6.5
Entomology	14	14.3	8
Floriculture	11	11.2	9
Horticulture. (includes pomology and vegetable crops)	10	10.2	10
Consumer Marketing. (Market information for consumer)	6	6.1	11
Dairy Science	5	5.1	12
Soil Conservation	2	2.0	13
Poultry	1	1.0	14
Dairy Technology	0	0	15

The rank order correlation between training needs and graduate training desired and training needs and in-service training desired in the district level, were moderately high and about the same for both comparisons. This data indicates that Agricultural Extension Agents desire in-service training, and graduate training in a manner that will meet their training needs in the area of "Agricultural subject matter".

Research and Evaluation

Table 20 shows the opinions of Kansas Agricultural Extension Agents on their training needs in the general area of "research and evaluation". The following were the most important three specific areas in which Agents felt the greatest need for training within this general area:

1. Knowledge of where to secure sound research information other than from experiment stations.
2. Understanding ways of designing evaluation projects.
3. Knowledge of the methods for measuring results of the programs.
3. Making application of research findings, in assisting people in my country. (tie for third).
3. How to make the best use of research publications. (tie for third).

Table 21 shows the Kansas Agricultural Extension Agents' ranking of the specific area within "research and evaluation" which Agents desire to include in their graduate training program. The following were the most important three specific areas Agents desire to pursue when they take their next leave of absence:

1. Making application of research findings in assisting people in my county.

TABLE 20.--Kansas Agricultural Extension Agents' opinions of their training needs in the general area of research and evaluation.

Specific Area of Training	Rank Order and Weighted Scores of Agents	
	Weighted Score	Rank
Knowledge of where to secure sound research information other than from experiment stations.	2.13	1
Understanding ways of designing evaluation.	2.10	2
Knowledge of the methods for measuring results of the programs.	2.05	4
Making application of research findings in assisting people in my county.	2.05	4
How to make the best use of research publications.	2.05	4
Understanding how to interpret statistical results.	2.01	6
How to interpret the results of research in the physical sciences.	1.95	7
How to interpret the results of research in the social sciences.	1.93	8.5
Understanding the role of investigation in solving problems with people.	1.93	8.5
How to use the experimental approach (pilot project) in extension work.	1.88	10
How to develop simple survey devices.	1.87	11
Understanding research terminology.	1.80	12

2. Knowledge of the methods for measuring results of programs.
3. How to use the experimental approach (pilot projects) in Extension work.
3. Understanding how to interpret statistical results. (tie for third)
3. How to develop simple survey devices. (tie for third)

Table 22 shows the Kansas Agricultural Extension Agents' ranking of the specific areas within "research and evaluation" which they desire to include in their in-service training program. The following were the three most important specific areas that Agents indicated they desire to include in their district in-service training program.

1. How to make the best use of research publications.
2. Knowledge of where to secure sound research information other than from experiment stations.
3. Making application of research findings in assisting people in my county.

The rank order correlation between the training needs expressed by Agricultural Extension Agents and the graduate training they desire to take in this area was .360. The correlation between the expressed training needs and the in-service training Agricultural Agents desire to include in their district next year was .612.

The relationship between the training needs of Agricultural Agents and the in-service training Agents desire to take was much higher than the correlation between training needs and the graduate training Agricultural Extension Agents desire to include in their graduate study program.

The data indicate that Kansas Agricultural Extension Agents will more nearly meet their expressed training needs through the in-service programs they desire to take in their district than through the graduate training they desire to include in their graduate study program when they take their

TABLE 21.—Graduate training desired by Kansas Agricultural Extension Agents in the general area of research and evaluation.

Specific Area of Training	Agents' Desire for Graduate Training		
	Number	Per Cent	Rank
Making application of research findings in assisting people in my county.	8	8.2	1
Knowledge of the methods for measuring results of programs.	7	7.1	2
How to use the experimental approach (pilot projects) in Extension work.	6	6.1	4
Understanding how to interpret statistical results.	6	6.1	4
How to develop simple survey devices.	6	6.1	4
Knowledge of where to secure sound research information other than from experiment stations.	5	5.1	6
Understanding ways of designing evaluation projects.	4	4.1	7.5
How to make the best use of research publications.	4	4.1	7.5
How to interpret the results of research in the physical sciences.	3	3.1	10
How to interpret the results of research in the social sciences.	3	3.1	10
Understanding the role of investigation in solving problems with people.	3	3.1	10
Understanding research terminology.	2	2.0	12

TABLE 22.--In-service training desired by Kansas Agricultural Extension Agents in the general area of research and evaluation.

Specific Area of Training	Agents' Desire for In-Service Training		
	Number	Per cent	Rank
How to make the best use of research publications.	23	23.5	1
Knowledge of where to secure sound research information other than from experiment stations.	21	21.4	2
Making application of research findings in assisting people in my country.	19	19.4	3
Understanding ways of designing evaluation projects.	12	12.2	4
Understanding how to interpret statistical results.	9	9.2	5
Knowledge of the methods for measuring results of programs.	8	8.2	6.5
Understanding the role of investigation in solving problems with people	8	8.2	6.5
How to use the experimental approach (pilot projects) in Extension work.	7	7.1	8.5
How to develop simple survey devices.	7	7.1	8.5
How to interpret the results of research in the physical sciences.	6	6.1	10
How to interpret the results of research in the social sciences.	5	5.1	11.5
Understanding research terminology.	5	5.1	11.5

leaves of absence.

Effective Thinking

Table 23 shows the weighted scores and the rank orders of training desired by Kansas Agricultural Extension Agents within the general area of "effective thinking". The following were the three specific areas in which Agents expressed the greatest need for training within the general area of "effective thinking".

1. Knowledge of techniques for developing effective thinking in Extension groups.
2. Understanding the role of the Extension worker in predicting probable future results from existing facts.
3. How to use the problem solving approach in Extension.

Table 24 shows the Kansas Agricultural Extension Agents' ranking of the specific training needs within the general area of "effective thinking" that they desire to include in their graduate study. The following three specific areas were the areas which Agricultural Extension Agents indicated the greatest desire to study when they take their next leaves of absence.

1. Understanding the processes of logical reasoning.
2. Understanding the role of the Extension workers in predicting probable future results from existing facts.
3. Understanding the relationship of the "problem solving" method to effective thinking.

Table 25 shows the Kansas Agricultural Extension Agents' ranking of the specific training within the general area of "effective thinking" which they desire to include in their in-service training program in their district next year. The following were the three specific areas which Agents desire:

TABLE 23.--Kansas Agricultural Extension Agents' opinion of their training needs in the general area of effective thinking.

Specific Area of Training	Rank Order and Weighted Scores of Agents	
	Weighted Score	Rank
Knowledge of techniques for developing effective thinking in Extension groups.	2.22	1
Understanding the role of the Extension workers in predicting probable future results from existing facts.	2.19	2
How to use the problem solving approach in Extension.	2.10	3
Knowledge of the principles of creative thinking.	2.04	4
Understanding the relationship of the "problem solving" method to effective thinking.	2.03	5
Understanding the effect of prejudice on the thinking process.	1.94	6
Understanding the effect of pressure groups on the thinking process.	1.93	7
Understanding the relationship of day-dreaming to creative thinking.	1.91	8
Understanding the relation of language (terms used) to the thinking process.	1.88	9
Understanding the processes of logical reasoning.	1.83	10

TABLE 24.--Graduate training desired by Kansas Agricultural Extension Agents in the general area of effective thinking.

Specific Area of Training	Agents Desire for Graduate Training		
	Number	Per Cent	Rank
Understanding the processes of logical reasoning.	13	23.3	1
Understanding the role of the Extension workers in predicting probable future results from existing facts.	12	22.2	2
Understanding the relationship of the "problem solving" method of effective thinking.	11	21.2	3
Knowledge of techniques for developing effective thinking in Extension groups.	10	20.2	4
How to use the problem solving approach in Extension work.	9	19.2	5
Understanding the relation of language (terms used) to the thinking process.	4	4.1	7
Understanding the effect of pressure groups on the thinking process.	4	4.1	7
Knowledge of the principles of creative thinking.	4	4.1	7
Understanding the relationship of day-dreaming to creative thinking.	3	3.1	9.5
Understanding the effect of prejudice on the thinking process.	3	3.1	9.5

TABLE 19.--In-service training desired by Kansas Agricultural Extension Agents in the general area of effective thinking.

Specific Area of Training	Agents Desire for In-Service Training		
	Number	Per Cent	Rank
Knowledge of techniques for developing effective thinking in Extension groups.	28	26.6	1
Understanding the relationship of the "problem solving" method to effective thinking.	19	19.4	2
Understanding the role of the Extension workers in predicting probable future results from existing facts.	16	16.3	3
How to use the problem solving approach in Extension work.	15	15.3	4
Knowledge of the principles of creative thinking.	12	12.2	5
Understanding the effect of prejudices on the thinking process.	10	10.2	6
Understanding the effect of pressure groups on thinking process.	7	7.1	7
Understanding the processes of logical reasoning.	6	6.1	8
Understanding the relationship of day-dreaming to creative thinking.	5	5.1	9
Understanding the relation of language (terms used) to the thinking process.	4	4.1	10

1. Knowledge of techniques for developing effective thinking in Extension groups.
2. Understanding the relationship of the "problem solving" method to effective thinking.
3. Understanding the role of the Extension workers in predicting probably future results from existing facts.

The rank order correlation between the training needs expressed by Agricultural Extension Agents and the graduate training desired was .239. The correlation between the training needs desired and in-service training desired was .870.

There was low rank order correlation between the training needs of Agricultural Agents and the graduate training desired by Agents within the general area of "effective thinking". The correlation between the training needs of Agricultural Agents and the in-service training Agents desire to include in next year's in-service training program in the district level was very high.

The data indicate that Kansas Agricultural Extension Agents could meet their expressed training needs through in-service training programs which they desire to take in the district level, to a greater degree than through the graduate training program they desire to take when they take their leaves of absence.

Program Planning Development

Table 26 shows the opinions of Kansas Agricultural Extension Agents as to their training needs within the general area of "program planning and development". The following were the three specific areas in which Agents expressed the greatest need for training within the area of "program planning

TABLE 26.--Kansas Agricultural Extension Agents' opinions of their training needs in the general area of program planning and development.

Specific Area of Training	Rank Order and Weighted Scores of Agents	
	Weighted Score	Rank
How to develop people's understanding of the county situation. (Program committee members and others).	2.01	1.5
How to "build in" evaluation procedures into program plans.	2.01	1.5
How to organize effective program planning committees.	2.00	3
How to involve "lay" people in program development.	1.87	4.5
How to build an integrated county program.	1.87	4.5
How to identify problems in the county situation and determine the priority of problems.	1.81	6
How to analyze the situation in my county.	1.80	7
Understanding the proper role I should assume with program planning committees.	1.75	8.5
How to use specialists in program development.	1.75	8.5
How to develop a long-time Extension program plan.	1.74	10
How to determine objectives of the county program.	1.73	11.5
How to relate the annual plan of work to the long-time Extension program plan.	1.73	11.5
Understanding the implications of the rapidly changing population trends in my county.	1.72	13

and development":

1. How to develop people's understanding of the county situation.
(Program committee members and others).
1. How to "build in" evaluation procedure into program plans.
(Tied for first).
3. How to organize effective program planning committees.

Table 27 shows Kansas Agricultural Extension Agents' ranking of the specific areas within "program planning and development" which they desire to include in their graduate training. The following three specific areas were the areas in which most Agricultural Extension Agents desire to study when they take their leaves of absence for advanced study:

1. How to organize effective program planning committees.
2. How to "build in" evaluation procedures into program planning.
3. How to involve "lay" people in program development.
3. How to identify problems in the county situation and determine the priority of problems. (Tied for third).

Table 28 shows Kansas Agricultural Extension Agents ranking of the specific areas within "program development" which they desire to include in their in-service training program in their district. The following are the three areas which most Agricultural Extension Agents desire to have in next year's in-service training program in their district:

1. How to develop peoples' understanding of the county situation.
(Program committee members and others).
2. How to "build in" evaluation procedures into program plans.
3. How to organize effective program planning committees.

The following rank order correlations were computed between: (1)
the training needs of Kansas Agricultural Extension Agents and the

TABLE 27.—Graduate training desired by Kansas Agricultural Extension Agents in the general area of program planning and development.

Specific area of Training	Agents Desire for Graduate Training		
	Number	Per Cent	Rank
How to organize effective program planning committees.	14	14.3	1
How to "build in" evaluation procedures into program plans.	13	13.3	2
How to involve "lay" people in program development.	11	11.2	3.5
How to identify problems in the county situation and determine the priority of problems.	11	11.2	3.5
How to analyze the situation in my county.	10	10.2	5
How to develop people's understanding of the county situation. (program committee members and others).	9	9.2	6
How to build an integrated county program.	7	7.1	7
Understanding the proper role I should assume with program planning committees.	5	5.1	8.5
Understanding the implications of the rapidly changing population trends in my county.	5	5.1	8.5
How to determine objectives of the county program.	4	4.1	10
How to develop a long-time Extension program plan.	2	2.0	11.5
How to relate the annual plan of work to the long-time Extension program plan.	2	2.0	11.5
How to use specialists in program development.	1	1.0	13

TABLE 26.—In-service training desired by Kansas Agricultural Extension Agents in the general area of program planning and development.

Specific Area of Training	Agents' Desire for In-service Training		
	Number	Per Cent	Rank
How to develop people's understanding of the county situation. (Program committee members and others).	18	18.4	1
How to "build in" evaluation procedures into program plans.	17	17.3	2
How to organize effective program planning committees.	16	16.3	3
How to analyze the situation in my county.	15	15.3	4
How to involve "lay" people in program development.	12	12.2	6.5
How to identify problems in the county situation and determine the priority of problems.	12	12.2	6.5
Understanding the implications of the rapidly changing population trends in my county.	12	12.2	6.5
How to build an integrated county program.	12	12.2	6.5
How to relate the annual plan of work to the long-time extension program plan.	11	11.2	9
How to determine objectives of the county program.	10	10.2	10
How to use specialists in program development.	8	8.2	11
How to develop a long-time extension program plan.	7	7.1	12
Understanding the proper role I should assume with program planning committees.	4	4.1	13

graduate training they desire to take, and (2) the training needs of Agricultural Agents and the in-service training desired next year on the district level.

Training needs and graduate training desired .761

Training needs and in-service training desired .728

The rank order correlation between training needs and graduate training desired and training needs and in-service training desired by Kansas Agricultural Extension Agents at the district level, were moderately high and about the same for both comparisons. This correlation indicates that Kansas Agricultural Extension Agents desire graduate training, and in-service training that will tend to meet their expressed training needs in the area of "program planning and development."

Human Development

Table 29 shows the weighted scores and ranks of training needs desired by Kansas Agricultural Extension Agents within the general area of "human development". The following were the three most important specific areas in which Agricultural Agents expressed the greatest need:

1. How to develop my own leadership abilities.
2. Knowledge of the principles and techniques in effective counseling.
3. How to develop an approach to Extension work that considers the feelings and values of the people served by the program.

Table 30 shows the Kansas Agricultural Extension Agents' ranking of the specific areas within "human development" which they desire to include in their graduate training program. The following three specific areas were those in which most Agricultural Agents indicated they desire to include in their graduate study when they take their leaves of absence:

TABLE 29.--Kansas Agricultural Extension Agents' opinions of their training needs in the general area of human development.

Specific Area of Training	Rank Order and Weighted Score of Agents	
	Weighted Score	Rank
How to develop my own leadership abilities	2.29	1
Knowledge of the principles and techniques in effective counseling.	2.12	2
How to develop an approach to Extension work that considers the feelings and values of the people served by the program.	1.88	3
Understanding the developmental process of boys and girls.	1.85	4
Understanding the factors affecting the behavior of people.	1.85	5
Knowledge of the attitudes and values held by people.	1.85	5
Understanding the factors affecting personality development in rural people.	1.82	7
Understanding the basic psychological drives of people, such as the need for recognition and need for security.	1.79	8
Understanding the reasons for aggressive behavior.	1.78	9
Understanding why people have certain goals in life.	1.72	10

1. Knowledge of the principles and techniques in effective counseling.
2. How to develop my own leadership abilities.
3. Understanding the factors affecting the behavior of people.

Table 31 shows the Agricultural Extension Agents' ranking of the specific areas within "human development" which they desire to include in district in-service training programs next year. The following were the most important areas which most Agricultural Agents indicated a desire for in-service training:

1. How to develop my own leadership abilities.
2. Knowledge of the principles and techniques in effective counseling.
3. How to develop an approach to Extension work that consider the feelings and values of the people served by the program.

The rank order correlation between the training needs desired by Kansas Agricultural Extension Agents and the graduate training they desire to include in this area was .743. The rank order correlation between the training needs desired and the in-service training Agents desired to include in their district next year was .772.

The correlations in both of the above comparisons were moderately high. The data indicates that Kansas Agricultural Extension Agents desire in-service training and graduate training that will tend to meet their expressed training needs in the area of "human development".

TABLE 30.—Graduate training desired by Kansas Agricultural Extension Agents in the general area of human development.

Specific Area of Training	Agents' Desire for Graduate Training		
	Number	Per Cent	Rank
Knowledge of the principles and techniques in effective counseling.	17	17.3	1
How to develop my own leadership abilities.	16	16.3	2
Understanding the factors affecting the behavior of people.	12	12.2	3
Understanding the basic psychological drives of people, such as the need for recognition and need for security.	8	8.2	5
Knowledge of the attitudes and values held by people.	8	8.2	5
How to develop an approach to Extension work that consider the feelings and values of the people served by the program.	8	8.2	5
Understanding why people have certain goals in life.	6	6.1	7.5
Understanding the factors affecting personality development in rural people.	6	6.1	7.5
Understanding the developmental process of boys and girls.	5	5.1	9
Understanding the reasons for aggressive behavior.	4	4.1	10

TABLE 21.--In-service training desired by Kansas Agricultural Extension Agents in the general area of human development.

Specific area of Training	Agents' Desire for In-service Training		
	Number	Per Cent	Rank
How to develop my own leadership abilities.	26	26.5	1
Knowledge of the principles and techniques in effective counseling.	20	20.4	2
How to develop an approach to Extension work that considers the feelings and values of the people served by the program.	18	18.4	3
Understanding the basic psychological drives of people, such as the need for recognition and for security.	10	10.2	4
Knowledge of the attitude and values held by people.	9	9.2	5
Understanding the factors affecting the behavior of people.	8	8.2	6.5
Understanding the reasons for aggressive behavior.	8	8.2	6.5
Understanding the developmental process of boys and girls	6	6.1	8
Understanding the factors affecting personality development in rural people.	5	5.1	9
Understanding why people have certain goals in life.	3	3.1	10

Communications

Table 32 shows the ranks and the weighted scores of specific training needs of Kansas Agricultural Extension Agents within the general area of "communication". The following were the three specific areas in which Kansas Agricultural Extension Agents expressed the greatest need for training within the general area of "communication":

1. How to make my public speaking more effective.
2. How to develop and use exhibits effectively.
3. How to write effective reports.
3. How to use television effectively and efficiently (tied for third).

Table 33 shows the Kansas Agricultural Extension Agents' ranking of the specific areas within "communication" which they desire to include in their graduate study program. The following were the most important three items which Agricultural Agents desire to include in their study when they take their leaves of absence:

1. How to make my public speaking more effective.
2. How to use visual aids in teaching.
3. Knowledge of the techniques in making office calls efficient and effective.

Table 34 shows the Agricultural Extension Agents' ranking of the specific areas within "communication" which they desire in next year's in-service training program in their district. The following were the most important areas which Agricultural Extension Agents desire in the district in-service training program:

TABLE 32.—Farmers Agricultural Extension Agents' opinions of their training needs in the general area of communication.

Specific Area of Training	Rank Order and Weighted Scores of Agents	
	Weighted Score	Rank
How to make my public speaking more effective.	2.16	1
How to develop and use exhibits effectively.	2.02	2
How to write effective reports.	1.95	3.5
How to use television effectively and efficiently.	1.95	3.5
How to use photographs effectively in Extension communication.	1.92	5
How to use visual aids in teaching.	1.89	6
How to use radio effectively and efficiently.	1.82	7
How to write effective news articles.	1.81	8
How to use news letters effectively and efficiently.	1.79	9
Knowledge of the techniques in making office calls efficient and effective.	1.77	10
How to use circular letters effectively.	1.75	11
How to write effective personal letters.	1.73	12
How to conduct effective farm and home visits.	1.63	13
Understanding the relationship between group processes and communication.	1.52	14
Understanding the basic principles of communication.	1.37	15

TABLE 13.—Graduate training desired by Kansas Agricultural Extension Agents in the general area of communication.

Specific Area of Training	Agents' Desire for Graduate Training		
	Number	Per Cent	Rank
How to make my public speaking more effective.	15	15.3	1
How to use visual aids in teaching.	7	7.1	2
Knowledge of the techniques in making office calls efficient and effective.	5	5.1	3
How to develop and use exhibits effectively.	4	4.1	6
How to write effective personal letters.	4	4.1	6
How to write effective reports.	4	4.1	6
How to write effective news articles.	4	4.1	6
How to use photographs effectively in Extension communication.	4	4.1	6
How to use news letters effectively and efficiently.	3	3.1	9
Understanding the basic principles of communication.	2	2.0	12
Understanding the relationship between group processes and communication.	2	2.0	12
How to use radio effectively and efficiently.	2	2.0	12
How to use circular letters effectively	2	2.0	12
How to conduct effective farm and home visits.	2	2.0	12
How to use television effectively and efficiently.	1	1.0	15

TABLE 34.--In-service training desired by Kansas Agricultural Extension Agents in the general area of communication.

Specific Area of Training	Agents Desire for In-service Training		
	Number	Per Cent	Rank
How to make my public speaking more effective.	12	12.4	1.5
Knowledge of the techniques in making office calls efficient and effective.	12	12.4	1.5
How to write effective reports.	16	16.3	3
How to develop and use exhibits effectively.	15	15.3	4.5
How to conduct effective farm and home visits.	15	15.3	4.5
How to write effective news articles.	19	19.3	6.5
How to use photographs effectively in Extension communication.	19	19.3	6.5
How to use circular letters effectively.	7	7.2	8
How to write effective personal letters.	6	6.1	10
How to use radio effectively and efficiently.	6	6.1	10
How to use news letters effectively and efficiently.	6	6.1	10
Understanding the basic principles of communication.	4	4.1	12
Understanding the relationship between group processes and communication.	4	4.1	12
How to use visual aids in teaching.	4	4.1	12
How to use television effectively and efficiently.	3	3.1	15

1. How to make my public speaking more effective.
1. Knowledge of the techniques in making office calls efficient and effective. (tie for first).
3. How to write effective reports.

The rank order correlation between the training needs expressed by Agricultural Extension Agents and the graduate training Agents desire to take in this area was .497. The rank order correlation between the training needs expressed by Agricultural Agents and the in-service training Agents desire next year in their district was .476.

The correlation between the expressed training needs and graduate training desired and training needs and in-service training desired at the district level, were low and about the same for both comparisons. These data indicate that Kansas Agricultural Extension Agents do not desire graduate training, and desire in-service training that will meet their expressed training needs in the area of "communication".

The Educational Process

Table 35 shows the Kansas Agricultural Extension Agents' opinions of their expressed training needs within the general area of "the educational process". The following were the three specific areas for which Agricultural Agents expressed the greatest need for training:

1. Understanding how to motivate people.
2. How to develop and use teaching methods.
3. Knowledge of the principles and procedures in teaching adults.

Table 36 shows the Kansas Agricultural Extension Agents' ranking of the specific areas within "the educational process" which they desire to include in their graduate study program. The following three specific areas were the most important ones which Agricultural Extension Agents desire to include in

TABLE 35.—Kansas Agricultural Extension Agents' opinions of their training needs in the general area of the educational process.

Specific Area of Training	Rank Orders and Weighted Scores of Agents	
	Weighted Score	Rank
Understanding how to motivate people.	2.22	1
How to develop and use teaching methods.	2.00	2
Knowledge of the principles and procedures in teaching adults.	1.98	3
Understanding the psychological theories of learning.	1.80	4
Understanding the philosophies of education.	1.75	5
Understanding the effect of the differences in individuals on the teaching-learning process.	1.66	6
Understanding the relationship between the need for and usefulness of subject matter information to learning.	1.62	7
Understanding how people learn.	1.59	8
Knowledge of the background and history of education.	1.58	9
Understanding the relation of interest to learning.	1.56	10
Understanding the relation of experience to learning.	1.51	11
Understanding the relation of learning to what we perceive (see, feel and hear) through our senses.	1.48	12

their graduate training program when they take their next leaves of absence:

1. Understanding how to motivate people.
2. Knowledge of the principles and procedures in teaching adults.
3. How to develop and use teaching methods.

Table 37 shows the Kansas Agricultural Extension Agents' ranking of the specific areas within "the educational process" which they desire to include in their in-service training program in their district. The following were the three specific areas in which Agents indicated the greatest desire:

1. Understanding how to motivate people.
2. How to develop and use teaching methods.
3. Knowledge of the principles and procedures in teaching adults.

The rank order correlation between the training needs desired by Agricultural Agents and the graduate training was .821. The correlation between the training needs desired and the in-service training Agricultural Agents desire to include in their district training program was .713.

The correlation between expressed training needs and graduate training desired was higher than expressed training needs and in-service training desired in the district level. The data indicate that the graduate training program would more nearly meet the expressed training needs of the Kansas Agricultural Extension Agents than would the in-service training program in the area of "the educational process".

Understanding Social Systems

Table 38 shows the opinions of Kansas Agricultural Extension Agents as to their expressed training needs within the general area of "social systems". The following were the three specific areas in which Agents expressed the greatest need for training within the area of "social systems".

TABLE 36.—Graduate training desired by Kansas Agricultural Extension Agents in the general area of the educational process.

Specific Area of Training	Agents' Desire for Graduate Training		
	Number	Per Cent	Rank
Understanding how to motivate people.	26	26.6	1
Knowledge of the principles and procedures in teaching adults.	12	12.2	2
How to develop and use teaching methods.	10	10.2	3
Understanding how people learn.	9	9.2	4
Understanding the psychological theories of learning.	7	7.1	5.5
Understanding the philosophies of education.	7	7.1	5.5
Understanding the effect of the differences in individuals on the teaching-learning process.	5	5.1	7
Understanding the relation of learning to what we perceive (see, feel and hear) through our senses.	3	3.1	8.5
Knowledge of the background and history of education.	3	3.1	8.5
Understanding the relation of experience to learning.	2	2.0	11
Understanding the relation between the need for and usefulness of subject matter information to learning.	2	2.0	11
Understanding the relation of interest to learning.	2	2.0	11

TABLE 37.--In-service training desired by Kansas Agricultural Extension Agents in the general area of the educational process.

Specific Area of Training	Agents' Desire for in-service Training		
	Number	Per Cent	Rank
Understanding how to motivate people.	33	33.7	1
How to develop and use teaching methods.	24	24.5	2
Knowledge of the principles and procedures in teaching adults.	23	23.5	3
Understanding the relationship between the need for and usefulness of subject matter information to learning.	10	10.2	4
Understanding how people learn.	6	6.1	5.5
Understanding the effect of the differences in individuals on the teaching-learning process.	6	6.1	5.5
Understanding the relation of interest to learning.	5	5.1	7.5
Understanding the philosophies of education.	5	5.1	7.5
Understanding the relation of learning to what we perceive (see, feel and hear) through our senses.	4	4.1	9
Understanding the psychological theories of learning.	3	3.1	10
Understanding the relation of experience.	2	2.0	11
Knowledge of the background and history of education.	0	0.0	12

1. Understanding the effect of changing social values on family life in my county.
2. Understanding the interactions of individuals in groups.
3. Understanding why people join groups and organizations.

Table 39 shows Kansas Agricultural Extension Agents' ranking of the specific areas within "social systems" which they desire to include in their graduate study program. The following three specific areas were the most important areas which Agricultural Agents desire to include in their graduate training when they take their leaves of absence for advanced study:

1. Knowledge of how to identify leadership in my county.
3. Understanding the effect of changing social values on family life in my county.
3. Understanding the interaction of individuals in groups. (tie for third).
3. Understanding the relation of social systems (the family, the communication. (tie for third).

Table 40 shows the Kansas Agricultural Extension Agents' ranking of the specific areas within "social systems" which they desire to include in the in-service training programs in their district. The following were the three most important specific areas which Agents indicated they would like to include in their in-service training program:

1. Knowledge of how to identify leadership in my county.
1. Understanding the effect of changing social values on family life in my county (tie for first).
4. Understanding the patterns of interdependence of the various groups in my county.

TABLE 38.—Kansas Agricultural Extension Agents' opinions of their training needs in the general area of understanding social systems.

Specific Area of Training	Rank Order and Weighted Scores of Agents	
	Weighted Score	Rank
Understanding the effect of changing social values on family life in my county.	1.80	1
Understanding the interactions of individuals in groups.	1.79	2
Understanding why people join groups and organizations.	1.78	3
Understanding the relation of social systems (the family, the community, organizations and groups) to communications.	1.65	4
Understanding the patterns of interdependence of the various groups in my county.	1.64	5
Understanding the functions of farm organization in rural life.	1.63	6
Understanding the role of the "informal" leader in the acceptance of new practices.	1.60	7.5
Knowledge of how to identify leadership in my county.	1.60	7.5
Understanding the purposes of the various public agencies in my county and their relation to the Extension Service.	1.55	9
Understanding the community organization in my county.	1.39	10

TABLE 39--Graduate training desired by Kansas Agricultural Extension Agents in the general area of understanding social systems.

Specific Area of Training	Agents' Desire for Graduate Training		
	Number	Pct Cent	Rank
Knowledge of how to identify leadership in my county.	10	10.2	1
Understanding the effect of changing social values on family life in my county.	8	8.2	3
Understanding the interactions of individuals in groups.	8	8.2	3
Understanding the relation of social systems (the family, the community, organizations and groups) to communication.	8	8.2	3
Understanding the purposes of the various public agencies in my county and their relation to the Extension Service.	6	6.1	5
Understanding the patterns of interdependence of the various groups in my county.	5	5.1	6
Understanding the role of the "informal" leader in the acceptance of new practices.	4	4.1	7.5
Understanding the functions of farm organization in rural life.	4	4.1	7.5
Understanding why people join groups and organizations.	3	3.1	9
Understanding the community organization in my county.	1	1.0	10

TABLE 10.—In-service training desired by Kansas Agricultural Extension Agents in the general area of understanding social systems.

Specific Area of Training	Agents' Desire for In-service Training		
	Number	Per Cent	Rank
Knowledge of how to identify leadership in my county.	10	10.2	1.5
Understanding the effect of changing social values on family life in my county.	10	10.2	1.5
Understanding the patterns of interdependence of the various groups in my county.	9	9.2	4
Understanding the interactions of individuals in groups.	9	9.2	4
Understanding the relation of social systems (the family, the community, organizations and groups) to communication.	9	9.2	4
Understanding the role of the "informal" leader in the acceptance of new practices.	8	8.2	6
Understanding why people join groups and organizations.	7	7.1	7.5
Understanding the functions of farm organization in rural life.	7	7.1	7.5
Understanding the purposes of the various public agencies in my county and their relation to the Extension Service.	6	6.1	9
Understanding the community organization in my county.	4	4.1	10

4. Understanding the interactions of individuals in groups. (tie for fourth).
4. Understanding the relation of social systems (the family, the community, organizations and groups) to communication. (tie for fourth).

The rank order correlation between the training needs desired by Kansas Agricultural Extension Agents and graduate training they desire to take in this area was .378. The rank order correlation between the training needs of Kansas Agricultural Extension Agents and the in-service training they desire to include in their district training program was .600.

The correlation between training needs and in-service training desired was higher than training needs and graduate training desired. The data indicate that the in-service training program would more nearly meet the expressed training needs of the Kansas Agricultural Extension Agents, than would the graduate training program in the area of "social systems".

Extension Organization and Administration

Table 41 shows the opinions of Kansas Agricultural Extension Agents relative to their training needs within the general area of "Extension organization and administration". The following were the most important three specific areas in which Agricultural Agents desire training within this general area:

1. Understanding Extension policies and procedures on promotion and salary adjustment.
2. Knowledge of the organization and functions of the Extension Service at the Federal Level.

TABLE 41.—Kansas Agricultural Extension Agents' opinions of their training needs in the general area of Extension organization and administration.

Specific Area of Training	Rank Orders and Weighted Scores of Agents	
	Weighted Score	Rank
Understanding Extension policies and procedures on promotion and salary adjustment.	1.97	1
Knowledge of the organization and functions of the Extension Service at the Federal level.	1.96	2
Knowledge of qualifications for Extension personnel at all levels in the Extension Service.	1.87	3
Understanding principles and procedures in office management.	1.81	4
Understanding how policies are formulated in the Kansas Extension Service.	1.76	5.5
Understanding retirement and insurance policies and procedures.	1.76	5.5
Knowledge of the existing policies in the Kansas Extension Service.	1.67	7
Understanding functions and responsibilities of Extension workers at the district level.	1.65	8.5
Understanding the recruitment procedures in the Extension Service in my state.	1.65	8.5
Knowledge of professional improvement opportunities.	1.63	10
Understanding the functions and responsibilities of the specialist staff.	1.60	11
Understanding Extension philosophy.	1.39	12
Understanding functions and responsibilities of Extension workers at the county level.	1.29	13
Understanding the Extension History.	1.20	14
Understanding how the Kansas Extension Service is organized.	1.16	15

3. Knowledge of qualifications for Extension personnel at all levels in the Extension Service.

Table 42 shows the Kansas Agricultural Extension Agents' ranking of the specific area of "Extension organization and administration" which they desire to include in their graduate training program. The following were the most important three specific areas that Agricultural Agents indicated they desire to include in their graduate training when they take their next leaves of absence.

1. Understanding principles and procedures in office management.
2. Understanding Extension philosophy.
3. Knowledge of the organization and functions of the Extension Service at the Federal level.

Table 43 shows the Kansas Agricultural Extension Agents' ranking of the specific areas within "Extension organization and development" which they desire to include in their district in-service training programs next year. The following were the most important three specific areas which Agricultural Agents indicated that they desire in in-service training:

1. Understanding principles and procedures in office management.
2. Understanding how policies are formulated in the Kansas Extension Service. (tie for two).
2. Understanding Extension policies and procedures on promotion and salary adjustment. (tie for two).
4. Understanding retirement and insurance policies and procedures.

The rank order correlation between the training needs expressed by Kansas Agricultural Extension Agents and graduate training they desire to take in this area was .592. The rank order correlation between the training needs expressed by Kansas Agricultural Agents and the in-service training

TABLE 42.—Graduate training desired by Kansas Agricultural Extension Agents in the general area of Extension organization and administration.

Specific Area of Training	Agents' Desire for Graduate Training		
	Number	Per Cent	Rank
Understanding principles and procedures in office management.	18	18.4	1
Understanding Extension philosophy.	10	10.2	2
Knowledge of the organization and functions of the Extension Service at the Federal level.	9	9.2	3
Understanding how policies are formulated in the Kansas Extension Service.	6	6.1	4.5
Knowledge of the qualifications for Extension personnel at all levels in the Extension Service.	6	6.1	4.5
Knowledge of the existing policies in Kansas Extension Service.	4	4.1	7
Knowledge of professional improvement opportunities.	4	4.1	7
Understanding functions and responsibilities of Extension workers at the county level.	4	4.1	7
Understanding Extension policies and procedures on promotion and salary adjustment.	3	3.1	9.5
Understanding retirement and insurance policies and procedures.	3	3.1	9.5
Understanding Extension history.	2	2.0	11.5
Understanding the recruitment procedures in the Extension Service in my state.	2	2.0	11.5
Understanding functions and responsibilities of Extension workers at the district level.	1	1.0	13.5
Understanding the functions and responsibilities of the specialist staff.	1	1.0	13.5
Understanding how the Kansas Extension Service is organized.	0	0.0	15.

TABLE 43.—In-service training desired by Kansas Agricultural Extension Agents in the general area of Extension organization and administration.

Specific Area of Training	Agents' Desire for In-Service Training		
	Number	Per Cent	Rank
Understanding principles and procedures in office management.	28	28.6	1
Understanding how policies are formulated in the Kansas Extension Service.	23	23.5	2.5
Understanding Extension policies and procedures on promotion and salary adjustment.	23	23.5	2.5
Understanding retirement and insurance policies and procedures.	22	22.4	4
Knowledge of qualifications for Extension personnel at all levels in the Extension Service.	14	14.3	5
Knowledge of the organization and functions of the Extension Service at the Federal level.	13	13.3	6
Knowledge of the existing policies in the Kansas Extension Service.	11	11.2	7.5
Understanding the recruitment procedures in the Extension Service in my state.	11	11.2	7.5
Knowledge of professional improvement opportunities.	9	9.2	9
Understanding Extension philosophy.	7	7.1	10
Understanding functions and responsibilities of Extension workers at the district level.	5	5.1	11
Understanding the functions and responsibilities of the specialist staff.	4	4.1	12.5
Understanding functions and responsibilities of the Extension workers at the county level.	4	4.1	12.5
Understanding Extension history.	1	1.0	14
Understanding how the Kansas Extension Service is organized.	0	0.0	15

they desire to include in their district training program was .897.

The relationship between training needs expressed by Agricultural Extension Agents and graduate training desired by Agents was somewhat low in this area, while the correlation between training needs expressed by Agricultural Agents and in-service training desired was relatively high. These data indicate that Kansas Agricultural Extension Agents will tend to meet their expressed training needs through in-service training to a higher degree than through the graduate training program.

Summary

The following were the important findings revealed by the analysis of the data presented in this chapter:

1. Six of the general areas of training, "agricultural subject matter", "research and evaluation", "effective thinking", "human development", "social systems", and "Extension organization and administration", showed greater correlation between the training needs expressed by the Agricultural Extension Agents and the in-service training they desire to include in their district, than between the expressed training needs of Agricultural Agents and the graduate training they desire to take when they take their leave of absence.
2. Three of the general areas of training, "program planning and development", "communication", and "the educational process", had greater correlation between the training needs expressed by Agricultural Extension Agents and the graduate training Agricultural Agents desire to take, than between the expressed training needs of Agricultural Extension Agents and the in-service training Agents desire to take in the district level.

3. The following specific areas of training are those in which over 25 per cent of Kansas Agricultural Extension Agents indicated a desire to include in their graduate training program when they take their leaves of absence:
 1. Animal Science.
 2. Farm Management.
 3. Agricultural Marketing.
 4. Understanding How to Motivate People.
4. The following specific areas of training are those in which over 25 per cent of the Kansas Agricultural Extension Agents indicated a desire to include in their in-service training at the district level:
 1. Animal Science.
 2. Agronomy.
 3. Knowledge of techniques for developing effective thinking in Extension.
 4. How to develop my own leadership abilities.
 5. Understanding how to motivate people.
 6. Understanding principles and procedures in office management.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The major purpose of this study was to analyze the training needs of Kansas County Agricultural Extension Agents as these needs were expressed by each Agent.

Specific objectives were developed to give more detail to the study. The specific objectives were:

1. To describe some of the personal and situational factors relative to training of Kansas Agricultural Extension Agents. These factors included:
 - a. Tenure (experience).
 - b. Academic degrees held by Agricultural Extension Agents.
 - c. Subjects emphasized in undergraduate degrees.
 - d. Amount of graduate training already completed toward graduate degrees.
 - e. The perceived role of Agricultural Extension Agents, as educational or non-educational.
2. To determine training needs of County Agricultural Extension Agents in Kansas in relation to the nine general areas of competency identified by the National Task Force on In-Service Training.
3. To identify specific items, within the nine competency areas, in which Kansas Agricultural Extension Agents felt the most need to include in graduate and in-service programs.
4. To determine if there were associations or relationships between training needs as expressed by the Agents and:

a. Tenure.

b. Perceived educational role.

This study was based largely upon the work of the National Task Force on Cooperative Extension In-Service Training. The nine areas of competency identified by the task force were:

1. Extension Organization and Administration.
2. Human Development.
3. The Educational Process.
4. Understanding Social Systems.
5. Program Planning and Development.
6. Communication.
7. Effective Thinking.
8. Technical Subject Matter.
9. Research and Evaluation.

The author reviewed and summarized research which helped to support and establish the situation for investigation, and to support and substantiate the findings of this particular study.

The questionnaire contained 127 sub-items. The statements used within the nine areas of competency were developed by McCormick.¹

Each of the nine areas was divided into four parts as follows:

Part I, concerned the importance of the nine areas to the effectiveness of the Agricultural Extension Agents in Kansas. Agents could indicate the degree of importance as "absolutely essential", "highly desirable", "would be helpful", or "not important".

Part II concerned the amount of training the Kansas Agricultural

¹McCormick, op. cit.

Extension Agents felt they needed in the nine areas of competency. Agents could indicate their training needs as "feel I understand", "need some training", "need much training", and "need very much training". Another item was added "not applicable to my job". A four point scale was developed and an equal distance between the four points on the scale was assumed.

Part III, concerned the areas which Kansas Agricultural Extension Agents would like to include in their graduate training program when they take their leaves of absence.

Part IV, concerned the areas which Kansas Agricultural Extension Agents would like to include in their in-service training programs at the district level next year.

The data for this study were collected from 98 County Agricultural Extension Agents in Kansas by mailed questionnaires during the month of June 1962. The respondents represented 93.3 per cent of the potential. Data were pre-coded and punched on IBM cards to facilitate analysis.

A total universe and descriptive statistical techniques were used in this study. Data were analyzed by means of mean weighted scores, percentage distributions, rank order, and coefficients of rank order correlation. The Spearman rank order correlation coefficient (r_{hs}) was used to show the degree of relationship or association between rankings by different groups.

The conclusions and summary of data were arranged according to the chapters.

Situational Factors Relative to Training of Kansas Agricultural Extension Agents

The major situational factors considered and analyzed in this study were:

Tenure. Thirty two and seven tenths per cent of Agents had less than six years tenure. Thirty per cent had over ten years service. Thirty three per cent had 6-10 years tenure. Only one Agent had less than one year of service.

Graduate Training of Agents. Eighty-four Agents hold a bachelor's degree only, and 14 hold master's degrees. Sixty-two per cent of the Agents had participated in graduate study.

Undergraduate Major of Agents. Thirty per cent of the Agents majored in Animal Husbandry. Over one-fourth majored in Agricultural Economics, eighteen per cent majored in Agricultural Education, and 15 per cent majored in Agronomy. Only five per cent majored in Dairy and 10 per cent majored in other fields.

Seventy three and seven tenths per cent of the Agents received their undergraduate training at Kansas State University. Twenty per cent graduated from Oklahoma State University. The rest of the Agents graduated from the University of Missouri, University of Nebraska, other Kansas schools and out of state schools.

Job Perception as a Factor in Training: Seventy-six and five tenths per cent of the Agents perceived their role as that of an educator. Twenty-three and five tenths per cent of the Agents perceived their role as non-educators.

Relationship of Job Perception to Undergraduate Training. Eighty per cent of the Agents who majored in Agricultural Economics, 82.4 per cent of those majored in Agricultural Education, 86.7 per cent of those majored in Agronomy, 63.3 per cent of those majored in Animal Husbandry, and 80 per cent of those majored in Dairy perceived their job as educational.

Relationship of Job Perception to Graduate Training: Fifty-two and nine tenths per cent of the Agents who hold master's degree perceived their role as educational. Seventy-two and eight tenths per cent of the Agents who hold only a bachelor's degree perceived their role as an educational one.

Eighty eight and nine tenths per cent of the Agents who had completed 19 or more semester hours of graduate work perceived their role as educational, while 72.7 per cent of the Agents who had completed less than 18 hours of graduate work perceived their role as educational.

Relationship of Tenure to Job Perception. Seventy five per cent of the 0 to 5 years tenure group, 76.4 per cent of the 6 to 20 years tenure group, and 75 per cent of the 21 years and over tenure group perceived their job as educational.

Training Needs Identified by Kansas Agricultural Extension Agents in the Nine General Areas of Competency

The following survey was organized on the basis of the hypothesis established at the beginning of this study. Each hypothesis is underlined and followed by summary and conclusion.

There is no relationship between the amount of training needed by Kansas Agricultural Extension Agents in each of the nine areas of competency and the Agents' perception of the importance of that area of competency.

Summary of Data: Weighted scores were the basis used in ranking the nine areas of competency. Weighted scores were obtained from the Agricultural Extension Agents' indications of the degree of training needed, or from Agents' indication of the importance of those areas.

The rank order of the nine areas of competency on the basis of the training needed by Kansas Agricultural Extension Agents was: (1) Technical Knowledge, (2) Research and Evaluation, (3) Effective Thinking, (4) Program Planning and Development, (5) Human Development, (6) Communication, (7) The Educational Process, (8) Social Systems, (9) Extension Organization and Administration.

The rank order of the nine areas of competency on the basis of the importance of these items to an Agent's effectiveness was: (1) Technical Knowledge, (2) Extension Organization and Administration, (3) Communication, (4) Program Planning and Development, (5) Research and Evaluation, (6) The Educational Process, (7) Effective Thinking, (8) Human Development, (9) Social Systems.

The rank order correlation between the training needed by Agricultural Extension Agents and the importance of these areas to Agents' effectiveness was .216. This correlation is actual because it represents the total population.

Conclusion. The hypothesis was accepted. The findings show that there was a low positive correlation between the ranking of expressed training needs of Kansas Agricultural Extension Agents and the importance of these areas. The degree of relationship was very low. This indicates that there was no important relationship between the expressed training needs and the importance of these areas to Agents' effectiveness.

There is no relationship between the ranking of the nine general areas of competency on the basis of the amount of training needed by Kansas Agricultural Extension Agents and tenure.

Summary of data. The following rank order correlations were computed

between the expressed training needs of Agents in the various tenure groups:

Less than one year to ten years and eleven to twenty years	.804
Eleven to twenty years and twenty-one years and over	.833
Less than one year to ten years and twenty-one years and over	.704

These rank order correlations show that the least correlation was between the less than one year to ten years and twenty-one years and over. The correlations between the first and second groups were considerably higher, and in the third group it was considered high.

Conclusion: The hypothesis was rejected. The data suggests that training needs of Agricultural Extension Agents vary slightly among the different tenure groups, and this difference may be an important factor to consider when planning training programs.

There is no relationship in the ranking of the nine areas of competency of training needed by Kansas Agricultural Extension Agents compared by job perception groups.

Summary of data: The rank order correlations between the expressed training needs of the Kansas Agricultural Extension Agents who perceived their job as educational and those who perceived their job as non-educational was .734. This was a high correlation between the training needs of these two groups.

Conclusions: The hypothesis was rejected. The correlation between Agricultural Extension Agents who perceived their role as educational and those who perceived their role as non-educational was high. This indicates that whether or not an Agricultural Agent perceived his job as that of educational it had little relationship to the ranking of his training needs in the nine general areas of competency.

There is no relationship between the amount of training needed by Kansas Agricultural Extension Agents in each of the nine areas of competency and the graduate training desired.

Summary of data: The rank order correlations between the Agents' ranking of the nine areas of competency on the basis of the training need in those areas and the ranking of the nine areas on the basis of the graduate training Agents desire to take when they take their leaves of absence was .058.

Conclusion: The hypothesis was accepted. The findings show that there was a low correlation between the ranking of training needs and the graduate training desired. The degree of relationship was very low and this indicates that there was no important relationship between training needs and graduate training desired. The implications are that Kansas Agricultural Extension Agents do not desire to take graduate training in line with their expressed training needs.

There is no relationship between the amount of training needed by the Kansas Agricultural Extension Agents in each of the nine areas of competency and the in-service training desired.

Summary of data: The rank order correlations between the Agents' ranking of the nine areas of competency on the basis of the training Agents felt they needed and their ranking of the areas on the basis of the in-service training program on the district level was .100. This descriptive statistic was very low, and indicates that there was little correlation between the training needs and the in-service training desired by Agents on the district level. These findings have profound implications for supervisors in planning the in-service training programs for Agricultural Extension Agents at the district level.

Conclusion: The hypothesis was accepted. The findings show that there was a very low correlation between the ranking of expressed training needs of Agricultural Agents and the in-service training desired. The degree of relationship was very low which indicates that there was no important relationship between these two variables.

Specific Items in Each of the Nine Areas of Competency
in which Kansas Agricultural Extension Agents Desire
Graduate and In-Service Training

This summary includes the specific items in each of the nine areas of competency in which Kansas Agricultural Extension Agents desire graduate and in-service training. This section did not have hypotheses underlying the analysis of data. The results should be of primary interest to Administrators and Supervisors of the Kansas Extension Service. These findings may be used in other states which have organizations and programs similar to that of Kansas Extension Service.

The following were the specific areas of competency, in which at least 25 per cent of the Kansas Agricultural Extension Agents desire to include in their graduate training when they take their leaves of absence:

1. Animal Science.
2. Farm Management.
3. Agricultural Marketing.
4. Understanding how to motivate people.

The following were the specific areas of training, in which at least 25 per cent of the Kansas Agricultural Extension Agents desire in-service training at the district level:

1. Animal Science.
2. Agronomy.

3. Knowledge of techniques for developing effective thinking in Extension
4. How to develop my own leadership abilities.
5. Understanding how to motivate people.
6. Understanding principles and procedures in office management

Recommendations

The Kansas Extension Service is concerned with the improvement of the competency of its Agricultural Extension Agents. The following recommendations are made based on the author's interpretation of the data in this study:

1. Maintain a strong organized induction training program for all new Agricultural Extension Agents and other Agents with greater emphasis on the educational role.
2. Encourage a counseling system between Agricultural Extension Agents and Supervisors, in order they can give their opinions on the training needed.
3. Make the information presented in this study available to advisors of graduate students majoring in Extension Education, in order they may use it in counseling with students.
4. Make the information presented in this study available to supervisors in order they may use them in counseling with Agents.
5. Strengthen the present in-service training program, by placing emphasis on important items identified by Agricultural Extension Agents, but do not overlook items in the lower ranks.
6. Conduct similar research studies in Kansas for identifying training needs of Home Economic Agents, Club Agents, Specialists and Supervisors.

7. Conduct research studies similar to this, on the training needs of County Agricultural Extension Agents in other states. Compare results.
8. Make a comparison between the training needs of Agricultural Extension Agents, Home Economics Agents and Club Agents in Kansas.
9. Develop job descriptions for Agents in order that they may recognize more clearly their training needs.
10. Determine training needs of County Agricultural Extension Agents as perceived by District Supervisors. Compare these needs with those expressed by the Agents.

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Thanks are due to all members of my family, especially to my brother Azmi Abdul-Hadi for his encouragement and financial support.

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APPENDIX

COOPERATIVE EXTENSION SERVICE

135

IN
AGRICULTURE AND HOME ECONOMICS

KANSAS STATE UNIVERSITY
Division of Extension
Programs and Training, Umberger Hall
MANHATTAN, KANSAS

April 30, 1962

TO: COUNTY EXTENSION PERSONNEL

RE: Personnel data and training needs

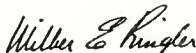
Dear Co-workers:

It has become a necessity that we have a readily available personnel file on each employee of the Kansas Extension Service. We know of no way to obtain parts of this information other than by asking you.

We have delayed for some weeks sending this questionnaire to you in order that we might attach the section on "training needs." The Kansas Training Committee will use this information in determining offerings for next year's in-service training program. Also the information will be used as a part of a master's thesis here at Kansas State University.

Would you please complete the attached questionnaire (making sure all questions are answered) and return it to the Director's office by May 15.

Sincerely yours,



Wilber E. Ringler
Assistant Director

Enclosure

PERSONNEL DATA
Division of Extension
Kansas State University

136

IBM
Column
No. _____

Name _____

Address _____

1. 2. 3. _____ Schedule Number

4. _____ Deck Number

5. Age

1 __ Under 26 years

2 __ 26 - 35 years

3 __ 36 - 45 years

4 __ 46 - 55 years

5 __ 56 - 65 years

6 __ over 65

6. 7. 8. 9. 10. 11. When were you born?

Month Day Year

Where were you born?

City State

12. Sex

1 __ male

2 __ female

13. Married

1 __ yes

2 __ no

14. Please check present rank at Kansas State University? (write in date each acquired)

1 __ Professor _____

5 __ Assistant Instructor _____

2 __ Associate Professor _____

6 __ Graduate Assistant _____

3 __ Assistant Professor _____

7 __ Resident Assistant _____

4 __ Instructor _____

8 __ Other (specify) _____

15. What is your title as stated in your current appointment?

- 1 __ County Agricultural Agent
- 2 __ Associate or Assistant County Agricultural Agent
- 3 __ County Home Economics Agent
- 4 __ Associate or Assistant County Home Economics Agent
- 5 __ Club Agent
- 6 __ Associate or Assistant Club Agent
- 7 __ Specialist
- 8 __ District Agent
- 9 __ Administrator
- 10 __ Other (specify) _____

16. 17. 18. What date did you enter

19. 20. 21. Extension the first time?

Month Day Year

22. How many total years of experience have you had in Extension as of July 1, 1962?

- 1 __ Less than one year
- 2 __ 1 - 5 years
- 3 __ 6 - 10 years
- 4 __ 11 - 15 years
- 5 __ 16 - 20 years
- 6 __ 21 - 25 years
- 7 __ 20 - 30 years
- 8 __ over 30 years

23. What area do you serve?

- 1 __ County
- 2 __ District
- 3 __ Area
- 4 __ State

24. Where do you headquarter or where is your office located?

- 1 __ In the county 2 __ Out in the district 3 __ At State Office in Manhattan

25. What is the highest degree you now hold?

- 1 ☐ Bachelor's
2 ☐ Master's
3 ☐ Doctor's
4 ☐ Other (specify) _____

26. Where did you receive your Bachelor's degree?

- 1 ☐ Kansas State University
2 ☐ Other Kansas School, (specify) _____
3 ☐ Oklahoma State University
4 ☐ University of Missouri
5 ☐ Colorado State University
6 ☐ University of Nebraska
7 ☐ Other out of state school, (specify) _____

When did you receive your Bachelor's degree?

Month Day Year

27. What was your undergraduate major?

- 1 ☐ Agriculture Economics
2 ☐ Agriculture or Home Economics Education
3 ☐ Agronomy
4 ☐ Animal Husbandry
5 ☐ Dairy
6 ☐ Foods and Nutrition
7 ☐ Clothing
8 ☐ Home Furnishings
9 ☐ Other (specify) _____

28. What was your undergraduate grade average?

- | | |
|-------------------------------|-------------------------------|
| 1 <input type="checkbox"/> A | 5 <input type="checkbox"/> C |
| 2 <input type="checkbox"/> B+ | 6 <input type="checkbox"/> D+ |
| 3 <input type="checkbox"/> B | 7 <input type="checkbox"/> D |

29. What was your grade average for your last four semesters of undergraduate work? 130

1 __ A

2 __ B+

3 __ B

4 __ C+

5 __ C

6 __ D+

7 __ D

30. Number of semester hours of graduate work completed?

0 __ None

1 __ 1 - 6

2 __ 7 - 12

3 __ 13 - 18

4 __ 19 - 24

5 __ 24 - 30

6 __ Over 30

31. Do you have an advanced degree program in progress at the present time?

1 __ yes

2 __ no

If yes, specify whether Master's or Ph. D. _____

Number of hours toward the degree? _____

Name of school in which you are enrolled? _____

32. If you hold an advanced degree, what was your field of specialization in work for the highest degree you hold?

1 __ Education

2 __ Agriculture or home economics education or Extension education

3 __ Administration (public, education or Extension)

4 __ Biological Sciences

5 __ Social Sciences

6 __ Home Economics

7 __ Other (specify) _____

2 __ Other (specify) _____

34. 35. 36. When did you receive your advanced degree? (the highest degree you now hold)
37. 38. 39.

Month Day Year

40. Have you ever used sabbatical leave?

1 __ yes

2 __ no

If yes, when? _____

41. Which of the following years did you attend Regional Extension School?

School Courses Taken Credits Grade Type of Financial Assistance

1 __ 1958

2 __ 1959

3 __ 1960

4 __ 1961

5 __ 1962

42. Scholarships you have received? Date Received?

1 __ Horace Moses _____

2 __ Farm Foundation _____

3 __ Sears Foundation _____

4 __ Kansas State University Subsistence Grant _____

5 __ Other (specify) _____

43. Fellowships you have received? (write date received after fellowship checked)

1 __ Frysinger _____

6 __ Ford Foundation _____

2 __ Pfizer _____

7 __ Kellogg Foundation _____

3 __ Hall _____

8 __ Farm Foundation _____

4 __ Tyson _____

9 __ Other (specify) _____

5 __ USS _____

44. Have you completed the five weeks Induction Training Program inaugurated at Kansas State University in July 1958?

1 ☐ yes

2 ☐ no

If yes, date of completion _____

45. How many years did you live on a farm after age 10 and previous to entering Extension work? (Include years in college if you returned to farm during the summer)

1 ☐ None

2 ☐ 1 - 6

3 ☐ 7 - 12

4 ☐ 13 - 18

5 ☐ 19 - 24

6 ☐ Over 24

46. How many years were you a 4-H Club member?

1 ☐ None

2 ☐ 1 - 3

3 ☐ 4 - 6

4 ☐ 7 - 9

5 ☐ Over 9

47. Membership in an organization

1 ☐ Lions

2 ☐ Kiwanis

3 ☐ Rotary

4 ☐ Altrusa

5 ☐ Optomist

6 ☐ Chamber of Commerce

7 ☐ Business & Professional Women's Club

8 ☐ Other (specify) _____

48. Membership in Learned Societies

1 ☐ yes

If yes list

2 ☐ no

49. If a county worker, in which district do you work?

1 ☐ Northeast

2 ☐ Southeast

3 ☐ Central

4 ☐ Northwest

5 ☐ Southwest

50. FOR COUNTY WORKERS ONLY

Role perception by the agent himself (check the one which you feel most nearly describes your job)

1 ☐ A professional agriculturist, home economist or youth worker available to provide information for the people of your county.

2 ☐ A professional agriculturist, home economist or youth worker providing service to the people of your county.

3 ☐ A professional educator developing educational programs with people to effect behavior changes in the people of your county.

4 ☐ A professional educator developing programs to help people help themselves.

5 ☐ A professional organizer of educational activities for the people of your county.

General Instructions

1. Please respond to ALL items listed in the questionnaire. Do not give any attention to the deck or column numbers.
2. The questionnaires are numbered for research control purposes only.
3. No names of any of the respondents will appear in thesis form nor in any material published as a result of this study.
4. On every page you will find a list of items, please check only one column at right for each item. The checking should be based on your feeling of the importance, and need of those items to you.
5. Your responses to all questions in this questionnaire should be made in terms of your most sincere feelings and beliefs.
6. Please do not feel that there is a certain way that you are expected to answer.
7. The data collected in this study will be analyzed and the information obtained will be made available to the staff of the Kansas Extension Service to be used in further development of its graduate and in-service training program.
8. Considering your present job, please indicate in the column at the right, the amount of training you feel you need in each of these areas.

(Check (✓) only one column at right for each item)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	
1. Understanding Extension History.						51
2. Understanding Extension philosophy.						52
3. Understanding how the Kansas Extension Service is organized.						53
4. Understanding how policies are formulated in the Kansas Extension Service.						54
5. Knowledge of the existing policies in the Kansas Extension Service.						55
6. Knowledge of professional improvement opportunities.						56
7. Understanding functions and responsibilities of extension workers at the county level.						57
8. Understanding functions and responsibilities of extension workers at the district level.						58
9. Understanding the functions and responsibilities of the specialist staff.						59
10. Knowledge of the organization and functions of the Extension Service at the Federal level.						60
11. Understanding principles and procedures in office management.						61
12. Understanding the recruitment procedures in the Extension Service in my state.						62
13. Understanding Extension policies and procedures on promotion and salary adjustment.						63
14. Understanding retirement and insurance policies and procedures.						64
15. Knowledge of qualifications for extension personnel at all levels in the Extension Service.						65

When I take my next leave of absence for advanced study from the Extension Service I would like to include: _____ None of the above areas in my graduate study program.

Number(s) _____ of the above areas in my graduate program.
(no more than 3 total) (66-71)

I would recommend for next year's in-service training program in my district that there be included:

_____ None of the above areas. Number(s) _____ of the above areas.

PROGRAM PLANNING AND DEVELOPMENT

145

9

(Check (✓) only one column at right for each item.)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	
1. How to analyze the situation in my county.						51
2. How to organize effective program planning committees.						52
3. Understanding the proper role I should assume with program planning committees.						53
4. How to involve "lay" people in program development.						54
5. How to develop people's understanding of the county situation. (Program committee members and others)						55
6. How to identify problems in the county situation and determine the priority of problems.						56
7. Understanding the implications of the rapidly changing population trends in my county.						57
8. How to develop a long-time Extension program plan.						58
9. How to determine objectives of the county program.						59
10. How to build an integrated county program.						60
11. How to relate the annual plan of work to the long-time Extension program plan.						61
12. How to "build in" evaluation procedures into program plans.						62
13. How to use specialists in program development.						63
	1	2	3	4	5	

Deck 2

Col

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate study program.
 Number(s) _____ of the above areas in my graduate program.
 (No more than 3 total) (64-69)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.
 Number(s) _____ of the above areas.
 (No more than 3 total) (70-75)

UNDERSTANDING SOCIAL SYSTEMS

10

146

Deck

Col

51

52

53

54

55

56

57

58

59

60

(Check (✓) only one column at right for each item)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND
1. Understanding the community organization in my county.					
2. Understanding the patterns of interdependence of the various groups in my county.					
3. Understanding the role of the "informal" leader in the acceptance of new practices.					
4. Knowledge of how to identify leadership in my county.					
5. Understanding the effect of changing social values on family life in my county.					
6. Understanding why people join groups and organizations.					
7. Understanding the functions of farm organization in rural life.					
8. Understanding the interactions of individuals in groups.					
9. Understanding the purposes of the various public agencies in my county and their relation to the Extension Service.					
10. Understanding the relation of social systems (the family, the community, organizations and groups) to communications.					
	1	2	3	4	5

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate study program.

Number(s) _____ of the above areas in my graduate program.
(No more than 3 total) (61- 66)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.

Number(s) _____ of the above areas.
(No more than 3 total) (67- 72)

(Check (✓) only one column at right for each item)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	FEEL MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	Deck Col
1. Understanding the developmental process of boys and girls						51
2. How to develop my own leadership abilities.						52
3. Understanding the basic psychological drives of people, such as the need for recognition and need for security.						53
4. Understanding the factors affecting the behavior of people.						54
5. Knowledge of the attitudes and values held by people.						55
6. Understanding why people have certain goals in life.						56
7. Understanding the reasons for aggressive behavior.						57
8. Knowledge of the principles and techniques in effective counseling.						58
9. How to develop an approach to Extension work that considers the feelings and values of the people served by the program.						59
10. Understanding the factors affecting personality development in rural people.						60
	1	2	3	4	5	

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate study program.
 Number(s) _____ of the above areas in my graduate program.
 (No more than 3 total) (61-66)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.
 Number(s) _____ of the above areas.
 (No more than 3 total) (67-72)

THE EDUCATIONAL PROCESS

12

148

(Check ☒ only one column at right for each item)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	Deck
						Col
1. Understanding how people learn.						51
2. Understanding the effect of the differences in individuals on the teaching-learning process.						52
3. Understanding the relation of experience to learning.						53
4. Understanding the relation of learning to what we perceive (see, feel and hear) through our senses.						54
5. Understanding the relationship between the need for and usefulness of subject matter information to learning.						55
6. Understanding the relation of interest to learning.						56
7. Knowledge of the principles and procedures in teaching adults.						57
8. How to develop and use teaching methods.						58
9. Knowledge of the background and history of education.						59
10. Understanding the psychological theories of learning.						60
11. Understanding the philosophies of education.						61
12. Understanding how to motivate people						62
	1	2	3	4	5	

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate program.
 Number(s) _____ of the above areas in my graduate program.
 (No more than 3 total) (63-68)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.
 Number(s) _____ of the above areas.
 (No more than 3 total) (69-74)

COMMUNICATION

13

(Check ☒ only one column at right for each item)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	149
						Doc
						Col.
1. Understanding the basic principles of communication.						51
2. Understanding the relationship between group processes and communication.						52
3. How to make my public speaking more effective.						53
4. How to develop and use exhibits effectively.						54
5. How to write effective personal letters.						55
6. How to write effective reports.						56
7. How to write effective news articles.						57
8. How to use radio effectively and efficiently.						58
9. How to use television effectively and efficiently.						59
10. How to use visual aids in teaching.						60
11. How to use news letters effectively and efficiently.						61
12. How to use photographs effectively in Extension communication.						62
13. How to use circular letters effectively.						63
14. How to conduct effective farm and home visits.						64
15. Knowledge of the techniques in making office calls efficient and effective.						65
	1	2	3	4	5	

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate study program.
 Number(s) of the above areas in my graduate program.
 (No more than 3 total) (66-71)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.
 Number(s) of the above areas.
 (No more than 3 total) (72-77)

(Check ☒ only one column at right for each item)

MALE PERSONNEL ONLY CHECK THIS PAGE

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	Deck Col.
1. Animal Science.						51
2. Dairy Science.						52
3. Agronomy (include crops, soils, fertilizers)						53
4. Agricultural Marketing. (include livestock, grain, dairy and poultry)						54
5. Farm Management.						55
6. Dairy Technology.						56
7. Agricultural Engineering. (include machinery, buildings and drainage)						57
8. Entomology.						58
9. Horticulture. (include pomology and vegetable crops)						59
10. Soil Conservation.						60
11. Poultry.						61
12. Agricultural Credit.						62
13. Consumer Marketing. (Market information for consumers)						63
14. Floriculture.						64
15. Plant Pathology.						65
	1	2	3	4	5	

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate training program.
Number(s) _____ of the above areas in my graduate program.
(No more than 3 total) (66-71)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.
Number(s) _____ of the above areas
(No more than 3 total) (72-77)

(Check ☒ only one column at right for each item)FEMALE PERSONNEL ONLY CHECK THIS PAGE

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	Deck Col
1. Clothing Economics.						51
2. Clothing Construction.						52
3. New Developments in Textiles.						53
4. Dress Design.						54
5. Basic nutritional principles.						55
6. Family Relations.						56
7. Child Nutrition.						57
8. Family Economics.						58
9. Home Management.						59
10. Child Development.						60
11. Consumer Marketing (marketing information for consumers)						61
12. Home Furnishings.						62
13. Household Equipment.						63
14. Interior Design.						64
15. Housing.						65
	1	2	3	4	5	

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate training program.

Number(s) _____ of the above areas in my graduate program.
(No more than 3 total) (66-71)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.

Number(s) _____ of the above areas.
(No more than 3 total) (72-77)

EFFECTIVE THINKING

252

(Check (✓) only one column at right for each item)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	Dec Col
1. Understanding the processes of logical reasoning.						51
2. Understanding the relation of language (terms used) to the thinking process.						52
3. Understanding the relationship of day-dreaming to creative thinking.						53
4. Understanding the relationship of the "problem solving" method to effective thinking.						54
5. Understanding the effect of prejudice on the thinking process.						55
6. Understanding the effect of pressure groups on the the thinking process.						56
7. Knowledge of techniques for developing effective thinking in Extension groups.						57
8. Knowledge of the principles of creative thinking.						58
9. How to use the problem solving approach in Extension work.						59
10. Understanding the role of the Extension workers in predicting probable future results from existing facts.						60
	1	2	3	4	5	

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate training program.
 Number(s) _____ of the above areas in my graduate program.
 (No more than 3 total) (61-66)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.
 Number(s) _____ of the above areas.
 (No more than 3 total) (67-72)

RESEARCH

(Check (✓) only one column at right for each item)

	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	Deck Cal.
1. Knowledge of the methods for measuring results of programs.						51
2. How to use the experimental approach (pilot projects) in extension work.						52
3. How to interpret the results of research in the physical sciences.						53
4. How to interpret the results of research in the social sciences.						54
5. Understanding research terminology.						55
6. Making application of research findings in assisting people in my county.						56
7. Understanding ways of designing evaluation projects.						57
8. Understanding how to interpret statistical results.						58
9. How to develop simple survey devices.						59
10. Understanding the role of investigation in solving problems with people.						60
11. Knowledge of where to secure sound research information other than from experiment stations.						61
12. How to make the best use of research publications.						62
	1	2	3	4	5	

When I take my next leave of absence for advanced study from the Extension Service I would like to include:

None of the above areas in my graduate study program.
 Number(s) _____ of the above areas in my graduate program.
 (No more than 3 total) (63- 68)

I would recommend for next year's in-service training program in my district that there be included:

None of the above areas.
 Number(s) _____ of the above areas.
 (No more than 3 total) (69- 74)

On the preceding pages you have had an opportunity to indicate your feeling of need for training in a large number of areas. Perhaps there are some additional areas that were not listed in which you feel a need for training. If this is the case, please indicate the area or areas below by writing them in the appropriate space and checking at the right the degree of training you feel that you need. If you do not feel the need for training in additional areas, write NONE in the space below.

Deck 1

COL.

(75-7)

Additional Area(s) of Training	Very Much Training Needed	Much Training Needed	Some Training Needed

Below is a suggested list of categories in which it might be desirable for county Extension agents to be trained. Please check these nine categories on the scale at the right below based on your feeling of the importance of these areas in contributing to the effectiveness of a county Extension agent.

Category	4 Absolutely Essential	3 Highly Desirable	2 Would be Helpful	1 Not Important	Desk no
<u>Extension Organization and Administration.</u>					51
<u>Human Development.</u> i.e., developmental processes of people, group interaction principles.					52
<u>The Educational Process:</u> principles of learning; teaching methods and philosophy of education					53
<u>Social Systems:</u> family, community, school, church groups, special interest groups, farm organizations.					54
<u>Program Planning and Development.</u>					55
<u>Communication:</u> basic communication, individual, group and mass media.					56
<u>Effective Thinking:</u> problem solving method; decision making based on critical analysis; and creativity.					57
<u>Technical Knowledge:</u> subject matter in agriculture and home economics.					58
<u>Research:</u> principles of research and evaluation; methods of utilizing research findings.					59

Listed below is the same list of categories you have just classified as to their importance in contributing to the effectiveness of a county Extension agent.

Please indicate by checking the scale below the amount of training you feel you need in each of these nine areas.

Category	NOT APPLICABLE TO MY JOB	NEED VERY MUCH TRAINING	NEED MUCH TRAINING	NEED SOME TRAINING	FEEL I UNDERSTAND	Deck Col
<u>Extension Organization and Administration</u>						60
<u>Human Development:</u> i.e., developmental processes of people, group interaction principles.						61
<u>The Educational Process:</u> principles of learning; teaching methods and philosophy of education.						62
<u>Social Systems:</u> family, community, school, church groups, special interest groups, farm organizations						63
<u>Program Planning and Development</u>						64
<u>Communication:</u> basic communication, individual, group and mass media.						65
<u>Effective Thinking:</u> problem solving methods, decision making based on critical analysis, creativity.						66
<u>Technical Knowledge:</u> subject matter in agriculture and home economic.						67
<u>Research:</u> principles of research and evaluation; methods of utilizing research findings.						68

1 2 3 4 5

Please check back through the entire questionnaire to be sure that all items are checked - Thank you!

AN ANALYSIS OF THE EXPRESSED TRAINING NEEDS OF
COUNTY AGRICULTURAL EXTENSION
AGENTS IN KANSAS

by

NAZEEM ABDUL-HADI

B.S., Kansas State University
Manhattan, Kansas, 1961

AN ABSTRACT OF
A MASTER'S THESIS

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requirements for the degree

MASTER OF SCIENCE

Department of Education

KANSAS STATE UNIVERSITY
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The major purpose of this study was to describe and analyze the expressed training needs of County Agricultural Extension Agents in Kansas. Specific objectives were developed to serve as guides in the collection and analysis of the data. The specific objectives established for the study were: (1) To describe some of the personal and situational factors relative to training of Kansas Agricultural Extension Agents. These factors were: Tenure, Academic degrees held by Agents, subjects emphasized in undergraduate degrees, amount of graduate training already completed toward graduate degrees and the perceived role of Agents, as educational or non-educational. (2) To determine training needs of Agents in relation to the nine general areas of competency identified by the National Task Force on In-Service Training. (3) To identify specific items, within the nine competency areas, in which Kansas Agents felt the most need to include in graduate and in-service training programs. (4) To determine if there were associations or relationships between training needs as expressed by Agents and: Tenure, perceived educational role.

The data were collected from 98 Agents by mailed questionnaire during June, 1962. A total universe and descriptive statistical techniques were used.

Data were pre-coded and punched on IBM cards to facilitate analysis. Data were analyzed by means of mean weighted scores, percentage distribution, and coefficient rank correlation (Rho).

Nine areas of competency, identified by the National Task Force on In-Service Training, formed the framework for this study. The areas are: (1) Extension Organization and Administration, (2) Human Development, (3) The Educational Process, (4) Understanding Social Systems, (5) Program Planning and Development, (6) Communication, (7) Effective Thinking, (8) Technical

Subject Matter, (9) Research and Evaluation.

Some of the findings revealed in the study were:

1. The Kansas Extension Service selects its Agents from the undergraduate areas of Agriculture.
2. Fourteen per cent of Kansas Agricultural Extension Agents hold master's degrees.
3. Thirty three per cent of the Agricultural Agents had 6-10 years tenure.
4. The highest per cent of Agricultural Agents majored in Animal Husbandry.
5. Seventy three and seven tenths per cent of the Agents received their undergraduate training at Kansas State University.
6. Sixty two per cent of the Agents have participated in graduate training.
7. Seventy six and five tenths per cent of the Agents perceived their role as that of an educator.
8. Ninety two and nine tenths per cent of Agents who held master's degrees perceived their role as educational. This compared with per cent of those holding only bachelor's degrees who perceived their role as educational.
9. Agents with five to twenty years of tenure perceived their role as educational to a greater extent than Agents in other tenure groups.
10. The rank order of the nine areas of competency on the basis of training Kansas Agricultural Agents felt they needed was: (1) Technical Knowledge, (2) Research and Evaluation, (3) Effective Thinking, (4) Program Planning and Development, (5) Human Development, (6) Communication, (7) The Educational Process, (8) Social Systems, (9) Extension Organization and Administration.
11. There was no important relationship between the ranking of the expressed training needs and the ranking of importance of these areas to Agents' effectiveness.
12. Training needs of Agents vary slightly among the different tenure groups.
13. Whether or not Agents perceived their role as educational showed little relationship to the ranking of training needs in the general areas of training needs.
14. There was no important relationship between expressed training needs and graduate training desired.

15. There was no important relationship between expressed training needs and in-service training desired.
16. The following were the specific areas, which at least 25 per cent of Agents desired to include in their graduate training: (1) Animal Science, (2) Farm Management, (3) Agricultural Marketing, (4) and Understanding How to Motivate People.
17. The following were the specific areas, which at least 25 per cent of Agents desired to include in their in-service training program: (1) Animal Science, (2) Agronomy, (3) Knowledge and Techniques for Developing Effective Thinking in Extension, (4) How to Develop My Own Leadership Abilities, and (5) Understanding Principles and Procedures in Office Management.

The findings of this study have their first implication to the Kansas Extension Service. The findings should be given consideration when planning future training programs.

The following recommendations were made based on the review of the literature and interpretation of the data analyzed in this study: (1) Maintain strong organized induction and in-service training programs for all Agents, with greater emphasis on the educational role. (2) Encourage a counseling system between Agents and Supervisors, in order they may express their opinions as to the training needed. (3) Make information presented in this study available to student advisors and Supervisors for use in counseling with students and Agents. (4) Strengthen the present in-service training program, by placing emphasis on important items identified by Agents, but do not overlook items in the lower ranks. (5) Conduct similar research studies in Kansas and other states to identify training needs of Agricultural Agents, Home Economics Agents, and Club Agents, then compare results. (6) Develop job descriptions for Agents in order that they may recognize more clearly their training needs. (7) Determine training needs of County Agricultural Extension Agents as perceived by district supervisors. Compare these needs with those expressed by the Agents.